VERCO®
STEEL DECK

VERCO DECKING, INC.

a NUCOR company

PUTTING THE POWER IN YOUR HANDS

Verco makes it easy for you to generate steel deck product data specific to your project with our Online Design Tools, helping you increase project performance and reduce project costs. They're compliant with 2021 IBC/2022 CBC, include detailed supporting data for transparency, and incorporate the latest research in referenced IAPMO evaluation reports.

ROOF DECK TOOLS - FOR BARE DECK

BARE DECK DIAPHRAGM: Calculate the bare deck diaphragm shear and stiffness for your configuration based on AISI S310 and current IAPMO evaluation reports.

BARE DECK UNIFORM LOAD: Determine the uniform gravity and wind-uplift loads for your bare deck configurations.

Explore additional tools to design bare deck for **Bare Deck Wall Anchorage** and to calculate a **Bare Deck Concentrated Load**.

FLOOR DECK TOOLS - FOR CONCRETE-FILLED DECK

COMPOSITE DECK-SLAB SUPERIMPOSED LOAD: Calculate composite deck-slab strength and maximum unshored span tables for your composite deck configurations.

DECK-SLAB DIAPHRAGM: Calculate diaphragm strengths and stiffness for deck-slabs with plain concrete, or concrete reinforced with Bekaert Dramix steel fibers, WWR or rebar.

UNSHORED CONSTRUCTION SPAN: Calculate maximum unshored construction spans and cantilevers for thick slabs based on your design criteria.

Explore the **Composite Deck-Slab Superimposed Load** tool further to find multi-span **composite deck-slab design** and **composite deck-slab vibration analysis**.

VISIT VERCODECK.COM/DESIGN-TOOLS

VERCO DECKING, INC.
a NUCOR company

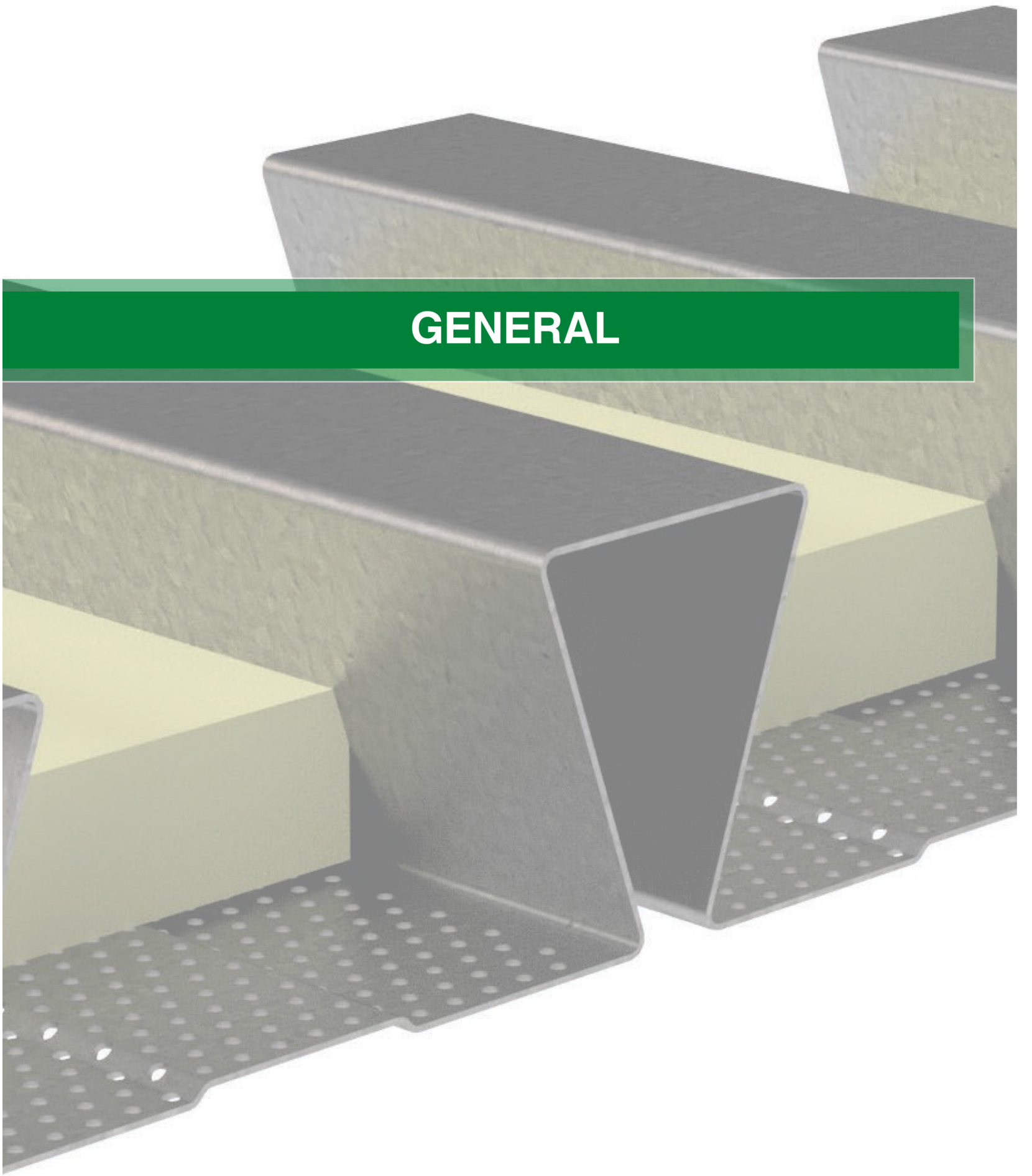
VERCO® DECK SOLUTIONS

VERCO® DECK SOLUTIONS

Catalog Solutions | Web Based Solutions

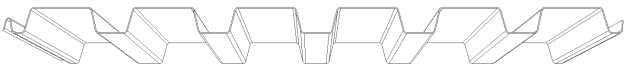
VERCO® DECK SOLUTIONS

Catalog Solutions | Web Based Solutions



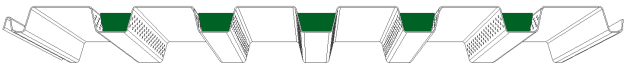
GENERAL

COMMON VERCO® ROOF PROFILES

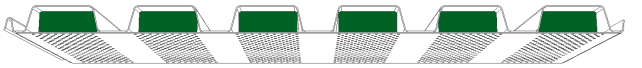


PLB™-36 and HSB®-36
1½"Deep, 36" Wide

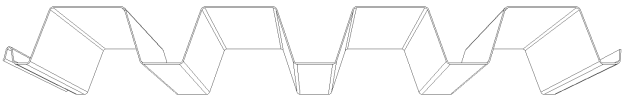
PLBCD-36 and HSBCD-36
1½"Deep, 36" Wide



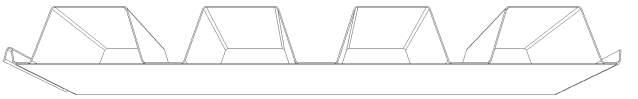
PLB™-36 AC and HSB®-36 AC
1½" Deep, 36" Wide



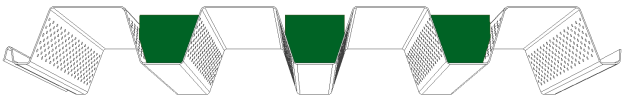
PLBCD-36 AC and HSBCD-36 AC
1½" Deep, 36" Wide



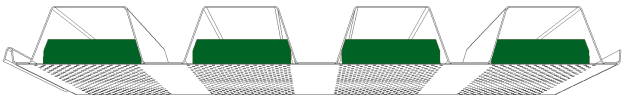
PLN3™-32 and HSN3™-32
3" Deep, 32" Wide



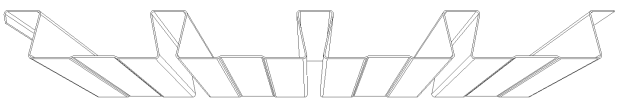
PLN3CD-32 and HSN3CD-32
3" Deep, 32" Wide



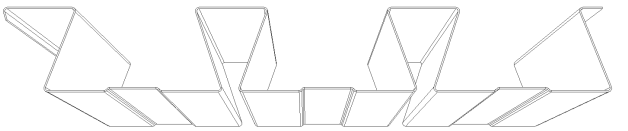
PLN3™-32 AC and HSN3™-32 AC
3" Deep, 32" Wide



PLN3CD-32 AC and HSN3CD-32 AC
3" Deep, 32" Wide

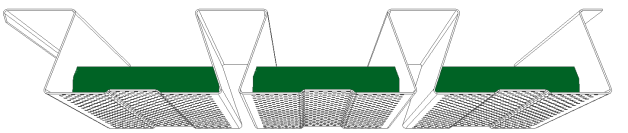


2.0D-24.5 Dovetail
2" Deep, 24½" Wide



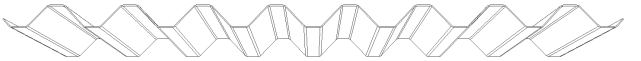
3.5D-24 Dovetail
3½" Deep, 24" Wide

2.0DA-24.5 Dovetail
2" Deep, 24½" Wide



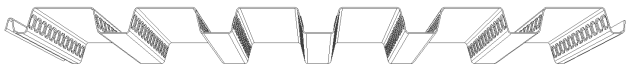
3.5DA-24 Dovetail
3½" Deep, 24" Wide

Shallow VERCOR® (SV-36)
9/16" Deep, 36" Wide

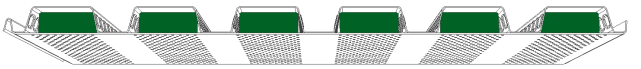


Deep VERCOR® (DV-36)
1 5/16" Deep, 36" Wide

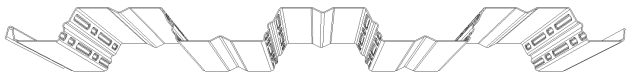
COMMON VERCO® FLOOR PROFILES



PLB™-36 and B-36 FORMLOK®
1½" Deep, 36" Wide

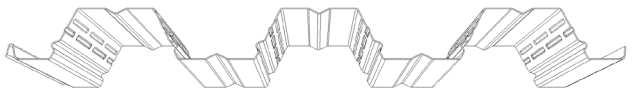


PLBCD-36 AC and BCD-36 AC FORMLOK®
1½" Deep, 36" Wide
(Non-Acoustic Versions Available)

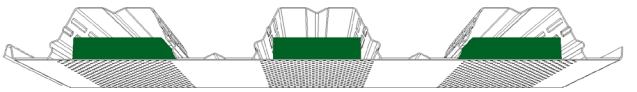


PLW2™-36 and W2-36 FORMLOK®
2" Deep, 36" Wide

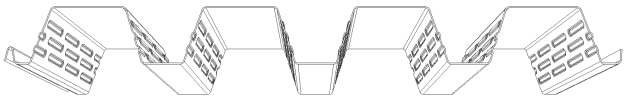
PLW2CD-36 AC and W2CD-36 AC FORMLOK®
2" Deep, 36" Wide
(Non-Acoustic Versions Available)



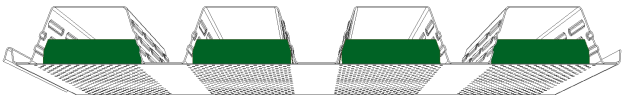
PLW3™-36 and W3-36 FORMLOK®
3" Deep, 36" Wide



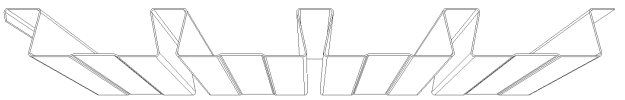
PLW3CD-36 AC and W3CD-36 AC FORMLOK®
3" Deep, 36" Wide
(Non-Acoustic Versions Available)



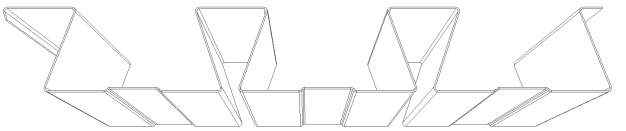
PLN3™-32 and N3-32 FORMLOK®
3" Deep, 32" Wide



PLN3CD-32 AC and N3CD-32 AC FORMLOK®
3" Deep, 32" Wide
(Non-Acoustic Versions Available)



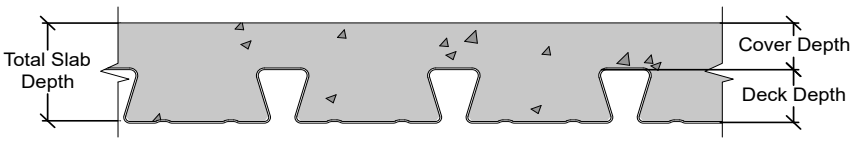
2.0D-24.5 FORMLOK® Dovetail
2" Deep, 24½" Wide



3.5D-24 FORMLOK® Dovetail
3½" Deep, 24" Wide

Shallow VERCOR® (SV-36)
9/16" Deep, 36" Wide

Deep VERCOR® (DV-36)
1 5/16" Deep, 36" Wide



Minimum Reinforcing Options for Temperature and Shrinkage f'_c = 3000 psi

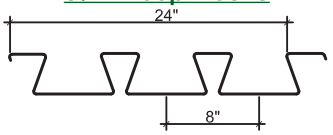
Cover Depth (in.)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage		
		WWR	(OR)	Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3)
				4D 65/60BG
Normal Weight Concrete (145 pcf)				
2	0.028	6x6-W1.4xW1.4		23
2¼	0.028	6x6-W1.4xW1.4		20
2½	0.028	6x6-W1.4xW1.4		18
2¾	0.028	6x6-W1.4xW1.4		16
3	0.028	6x6-W1.4xW1.4		15
3¼	0.029	6x6-W2.1xW2.1		15
3½	0.032	6x6-W2.1xW2.1		15
3¾	0.034	6x6-W2.1xW2.1		15
4	0.036	6x6-W2.1xW2.1		15
4¼	0.038	6x6-W2.1xW2.1		15
4½	0.041	6x6-W2.1xW2.1		15
4¾	0.043	6x6-W2.9xW2.9		15
5	0.045	6x6-W2.9xW2.9		15
6	0.054	6x6-W2.9xW2.9		15
Light Weight Concrete (110 pcf)				
2	0.028	6x6-W1.4xW1.4		33
2¼	0.028	6x6-W1.4xW1.4		28
2½	0.028	6x6-W1.4xW1.4		25
2¾	0.028	6x6-W1.4xW1.4		22
3	0.028	6x6-W1.4xW1.4		20
3¼	0.029	6x6-W2.1xW2.1		20
3½	0.032	6x6-W2.1xW2.1		20
3¾	0.034	6x6-W2.1xW2.1		20
4	0.036	6x6-W2.1xW2.1		20
4¼	0.038	6x6-W2.1xW2.1		20
4½	0.041	6x6-W2.1xW2.1		20
4¾	0.043	6x6-W2.9xW2.9		20
5	0.045	6x6-W2.9xW2.9		20
6	0.054	6x6-W2.9xW2.9		20

Notes:

1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

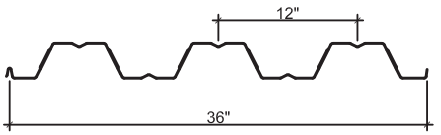
For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@bekaert.com.

3½" Deep Decks

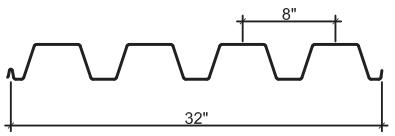


3.5DS, 3.5DF FormLok®

3" Deep Decks

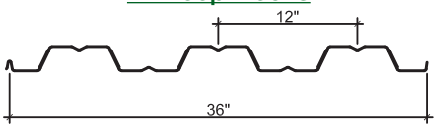


PLW3, W3

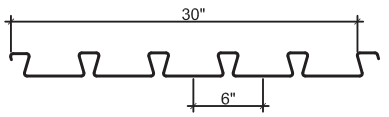


PLN3, N3

2" Deep Decks

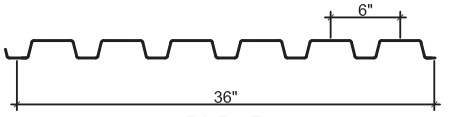


PLW2, W2

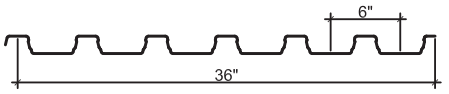


2.0DS, 2.0DF FormLok®

1½" Deep Decks



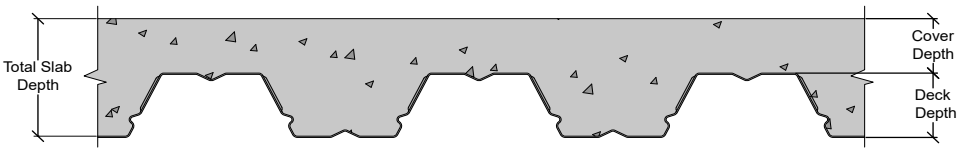
PLB, B



BR

Composite Deck Slab

Total Slab Depth (in.)	Cover Depth (in.) 3½" Deep Decks — Verco FormLok® Composite Decks: 3.5DS, 3.5DF	3" Deep Decks — PLW3, W3, PLN3, N3,	2" Deep Decks — PLW2, W2, 2.0DS, 2.0DF	1½" Deep Decks — 1PLB, B, BR
3 1/2	-	-	-	2
3 3/4	-	-	-	2 1/4
4	-	-	2	2 1/2
4 1/4	-	-	2 1/4	2 3/4
4 1/2	-	-	2 1/2	3
4 3/4	-	-	2 3/4	3 1/4
5	-	2	3	3 1/2
5 1/4	-	2 1/4	3 1/4	3 3/4
5 1/2	2	2 1/2	3 1/2	4
5 3/4	2 1/4	2 3/4	3 3/4	4 1/4
6	2 1/2	3	4	4 1/2
6 1/4	2 3/4	3 1/4	4 1/4	4 3/4
6 1/2	3	3 1/2	4 1/2	5
6 3/4	3 1/4	3 3/4	4 3/4	5 1/4
7	3 1/2	4	5	5 1/2
7 1/4	3 3/4	4 1/4	5 1/4	5 3/4
7 1/2	4	4 1/2	5 1/2	6
7 3/4	4 1/4	4 3/4	5 3/4	-
8	4 1/2	5	6	-
9	5 1/2	6	-	-
9 1/2	6	-	-	-

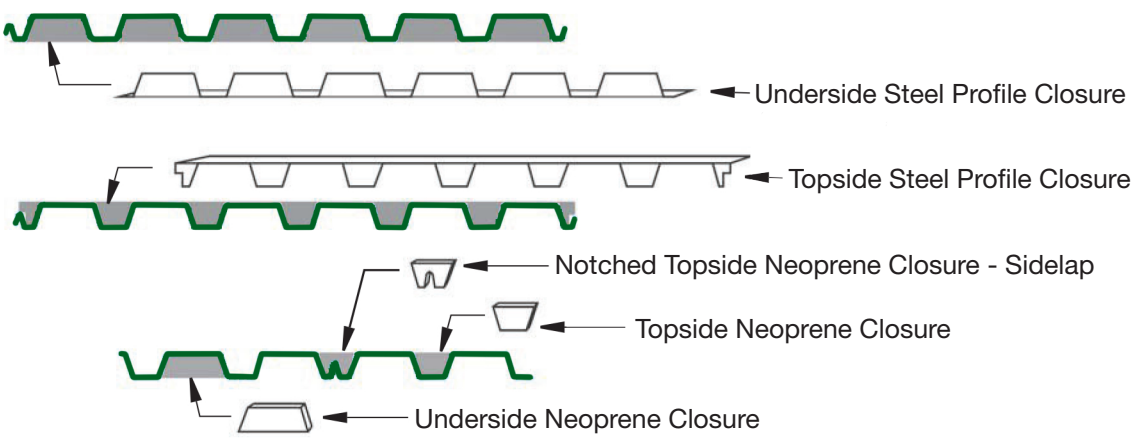


PROFILE CLOSURES

Profile closures made from steel or neoprene are designed to fit Verco's deck products. See table below for availability of closures by deck profile. Steel closures are 22 gage with a 1 in. return lip for fastening to deck with screws or tack welds. Neoprene closures for decks are 1 in. thick individual plugs. Dovetail Air Dams are 48" thick. Neoprene closures for VERCOR decks are 1 in. thick, 36 in. long strips. These closures are not intended to be used as concrete closures or stops.

Availability of Profile Closures

Deck Profile	Steel Closures		Neoprene Closures		
	Underside	Topside	Underside	Topside	Air Dam
PLB-36 / HSB-36	✓	✓	✓	✓	
PLN3-32 / HSN3-32	✓	✓	✓	✓	
PLW2-36 / W2-36	✓	✓	✓	✓	
PLW3-36 / W3-36	✓	✓	✓	✓	
2.0DS-30 / 2.0DF-30	✓	✓	✓	✓	✓
3.5DS-24 / 3.5DF-24	✓	✓	✓	✓	✓
Deep VERCOR (DV)			✓	✓	
Shallow VERCOR (SV)			✓	✓	

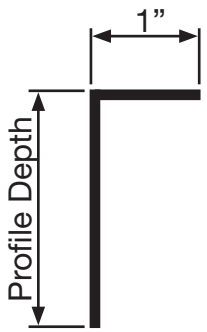


Note: PLB or B deck closures shown; closures for other profiles are installed similarly.

END CLOSURES / BREAK-FORMED ACCESSORIES

Standard steel end (cell) closures are available for all profiles. End closures for 1½" deep decks are 22 gage, closures for 2" and deeper decks are 20 gage.

Consult your Verco District Sales Manager regarding the availability of non-standard accessories.

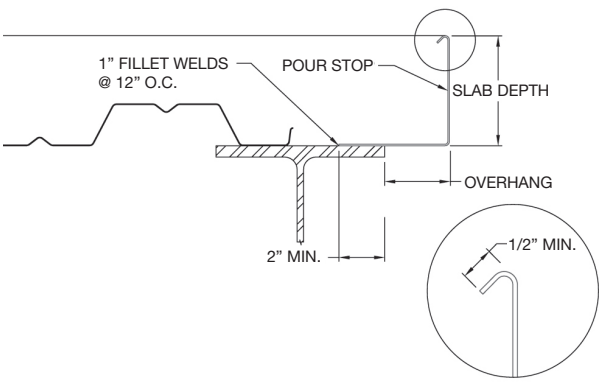


SDI POUR STOP SELECTION

Pour Stop Gage

Slab Depth (in.)	Overhang (in.)												
	0	1	2	3	4	5	6	7	8	9	10	11	12
4.00	20	20	20	20	18	18	16	14	12	12	12	10	10
4.25	20	20	20	18	18	16	16	14	12	12	12	10	10
4.50	20	20	20	18	18	16	16	14	12	12	12	10	10
4.75	20	20	18	18	16	16	14	14	12	12	10	10	10
5.00	20	20	18	18	16	16	14	14	12	12	10	10	
5.25	20	18	18	16	16	14	14	12	12	12	10	10	
5.50	20	18	18	16	16	14	14	12	12	12	10	10	
5.75	20	18	16	16	14	14	12	12	12	12	10	10	
6.00	18	18	16	16	14	14	12	12	12	10	10	10	
6.25	18	18	16	14	14	12	12	12	12	10	10		
6.50	18	16	16	14	14	12	12	12	12	10	10		
6.75	18	16	14	14	14	12	12	12	10	10	10		
7.00	18	16	14	14	12	12	12	12	10	10	10		
7.25	16	16	14	14	12	12	12	10	10	10			
7.50	16	14	14	12	12	12	12	10	10	10			
7.75	16	14	14	12	12	12	10	10	10	10			
8.00	14	14	12	12	12	12	10	10	10				
8.25	14	14	12	12	12	10	10	10	10				
8.50	14	12	12	12	12	10	10	10					
8.75	14	12	12	12	12	10	10	10					
9.00	14	12	12	12	10	10	10						
9.25	12	12	12	12	10	10	10						
9.50	12	12	12	10	10	10							
9.75	12	12	12	10	10	10							
10.00	12	12	10	10	10	10							
10.25	12	12	10	10	10								
10.50	12	12	10	10	10								
10.75	12	10	10	10									
11.00	12	10	10	10									
11.25	12	10	10										
11.50	10	10	10										
11.75	10	10											
12.00	10	10											

Gage	Design Thickness (in.)
20	0.0358
18	0.0474
16	0.0598
14	0.0747
12	0.1046
10	0.1345



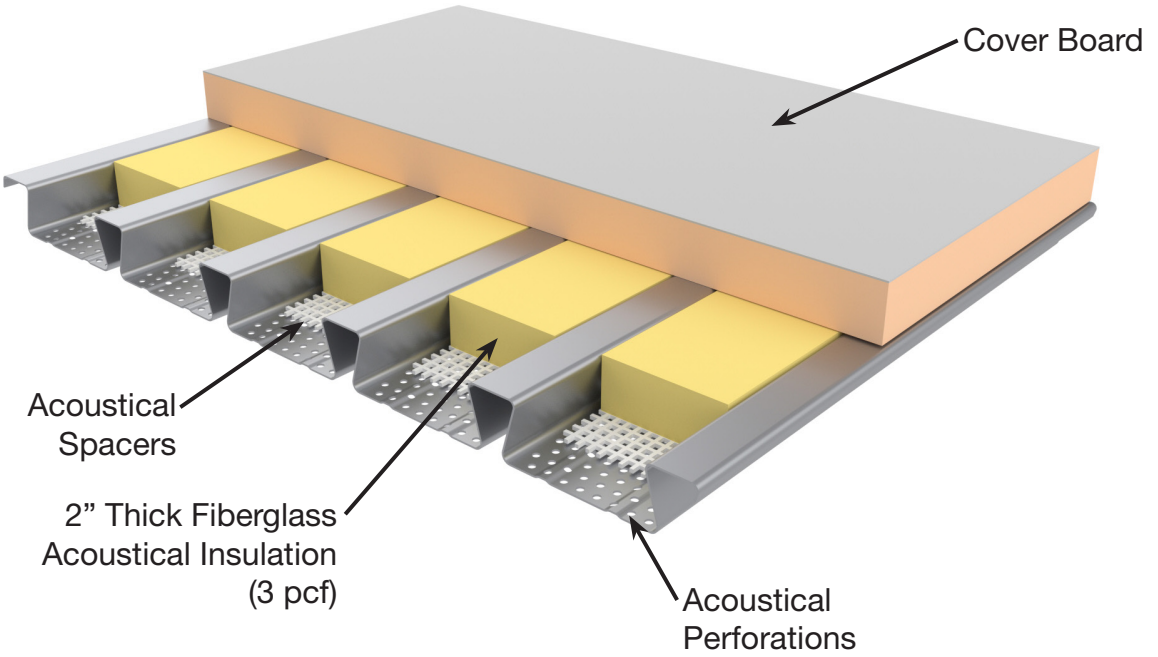
NOTES:

1. Normal weight concrete 150 PCF
2. Horizontal and vertical deflection is limited to 1/4" maximum for dead load
3. Desgin stress is limited to 20 KSI for concrete dead load temporarily increased by one-third for construction live load of 20 PSF
4. Pour Stop Selection Chart does not consider the effect of performance, deflection, or rotation of the pour stop support which may include both the supporting deck and/or the frame
5. Vertical leg return lip is recommended for all gages
6. This selection table is not meant to replace the judgment of experienced structural engineers and should be considered as a reference only

REDUCE INTERIOR NOISE WITH THE SOUND ABSORPTION CAPABILITIES OF 2.0DS-30 AC OR 2.0DF-30 AC ACOUSTICAL ROOF DECK

2.0” DEEP DOVETAIL ACOUSTICAL DECK

- **FM Approved[1]**
- **IAPMO UES ER-423**



Noise Reduction Coefficients

Cover Board	Deck Insulation	Absorption Coefficients 125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	SSA	NRC	RAL Test No.
2” Poly-Iso	Plain	0.22	0.52	1.14	1.04	0.83	0.76	0.88	0.90	A25-163
	Encapsulated	0.34	0.59	0.96	0.75	0.79	0.68	0.78	0.75	A25-164
2” Fiberglass	Plain	0.77	1.21	1.21	1.01	0.85	0.62	1.06	1.05	A25-184
	Encapsulated	0.63	0.86	0.95	0.75	0.74	0.63	0.84	0.85	A25-183
½" Roof Board	Plain	0.24	0.47	1.11	1.04	0.81	0.64	0.85	0.85	A25-190
	Encapsulated	0.26	0.60	1.17	0.92	0.62	0.38	0.81	0.85	A25-188

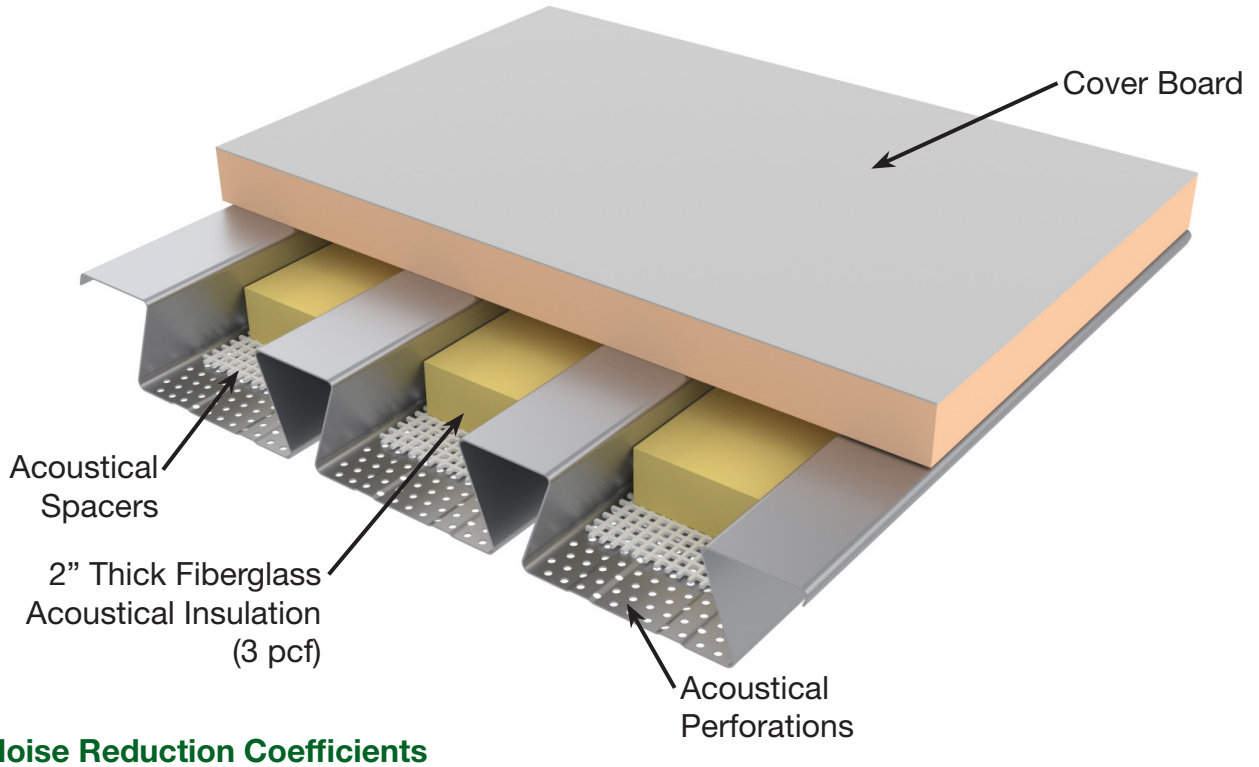
Notes:

1. See Factory Mutual Approval Report for complete assembly details.
2. The acoustical test reports with complete assembly details are available from www.vercodeck.com.

REDUCE INTERIOR NOISE WITH THE SOUND ABSORPTION CAPABILITIES OF 3.5DS-30 AC OR 3.5DF-30 AC ACOUSTICAL ROOF DECK

3.5” DEEP DOVETAIL ACOUSTICAL DECK

- **FM Approved[1]**
- **IAPMO UES ER-423**

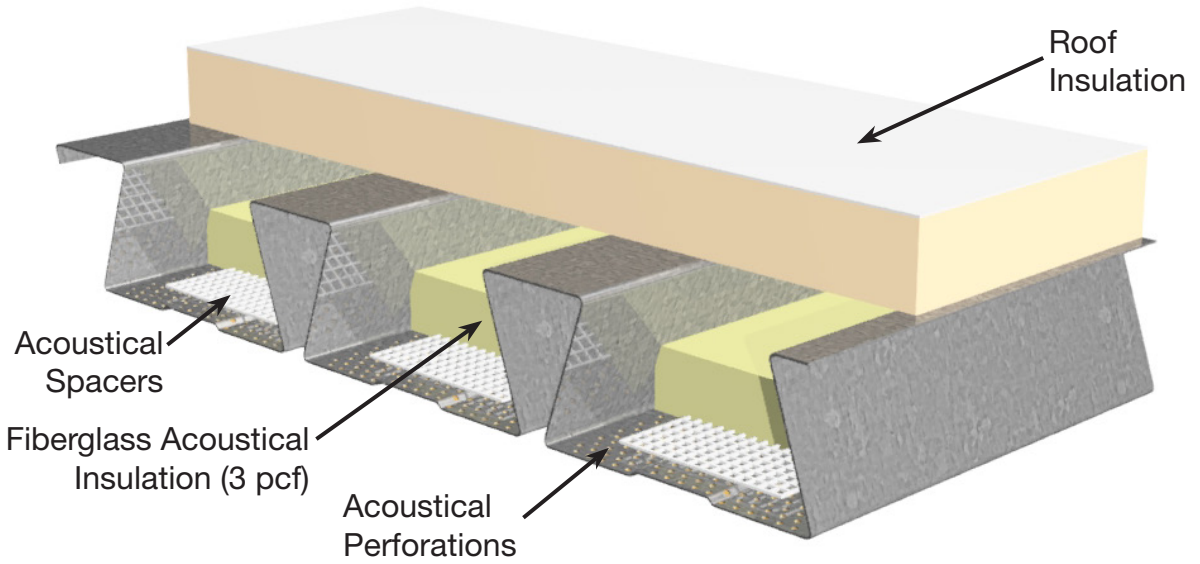


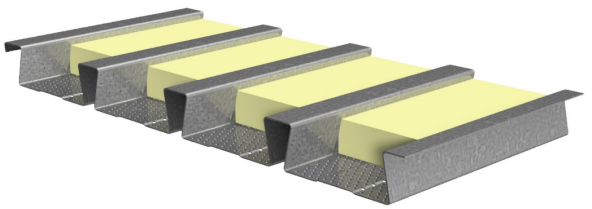
Noise Reduction Coefficients

Cover Board	Deck Insulation	Absorption Coefficients 125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	SSA	NRC	RAL Test No.
2” Poly-Iso	Plain	0.33	0.72	1.08	0.97	0.92	0.76	0.93	0.90	A25-214
	Encapsulated	0.40	0.80	1.04	0.86	0.74	0.55	0.87	0.85	A25-211
2” Fiberglass	Plain	0.77	1.11	1.08	0.96	0.90	0.73	1.04	1.00	A25-215
	Encapsulated	0.78	1.02	0.99	0.90	0.75	0.64	0.93	0.90	A25-210
½" Roof Board	Plain	0.26	0.69	1.07	0.97	0.92	0.75	0.92	0.90	A25-213
	Encapsulated	0.42	0.79	1.00	0.84	0.73	0.57	0.85	0.85	A25-212

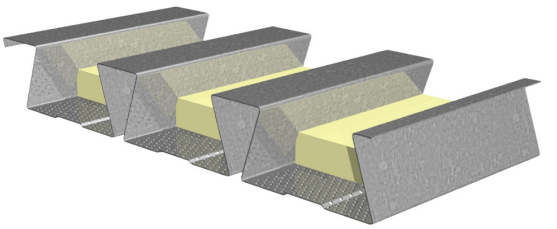
Notes:

1. See Factory Mutual Approval Report for complete assembly details.
2. The acoustical test reports with complete assembly details are available from www.vercodeck.com.





•2.0DA DOVETAIL

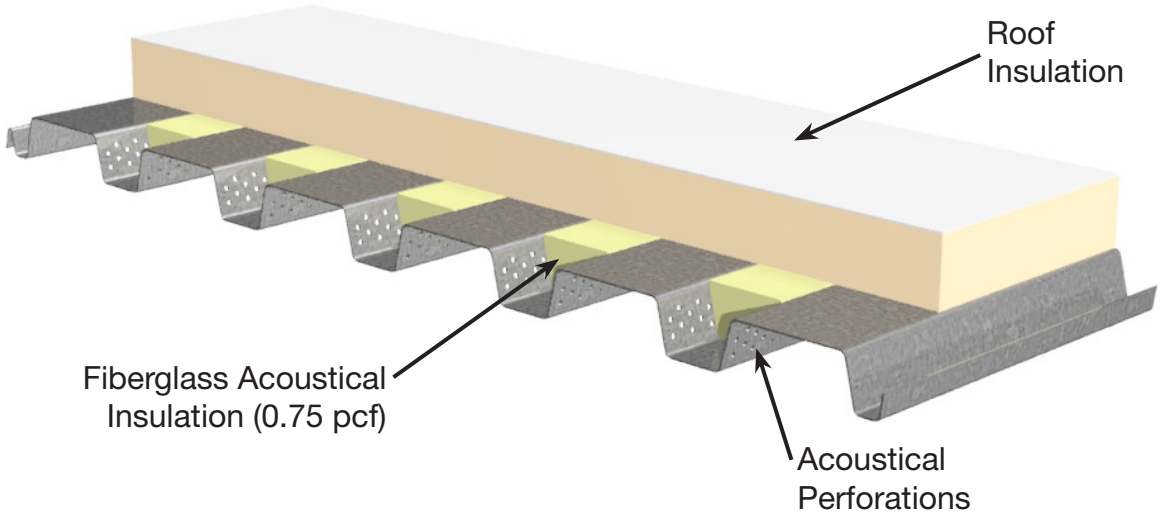


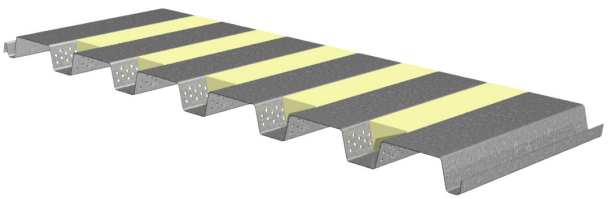
•3.5DA DOVETAIL

Roof Insulation	AC Insulation	Absorption Coefficients 125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	SSA	NRC	Test. No.
2.0DA DOVETAIL										
Poly-Iso	Plain	0.19	0.54	1.15	1.07	1.01	0.79	0.95	0.95	A14-170
	Encapsulated	0.35	0.82	1.15	0.99	0.97	0.72	0.96	1.00	A14-167
Fiberglass	Plain	0.74	1.40	1.25	1.03	0.98	0.80	1.14	1.15	A14-169
	Encapsulated	0.62	1.18	1.08	0.93	0.97	0.77	1.02	1.05	A14-168
½" Roof Board	Plain	0.17	0.51	1.05	1.05	0.85	0.77	0.85	0.85	A19-101
	Encapsulated	0.30	0.56	1.02	0.99	0.92	0.78	0.86	0.85	A19-102
3.5DA DOVETAIL										
Poly-Iso	Plain	0.25	0.74	1.13	1.06	0.97	0.75	0.96	1.00	A14-186
	Encapsulated	0.38	0.86	1.18	1.03	0.93	0.65	0.98	1.00	A14-189
Fiberglass	Plain	0.92	1.51	1.13	1.06	0.98	0.78	1.14	1.15	A14-187
	Encapsulated	0.97	1.50	1.09	1.00	0.91	0.67	1.10	1.15	A14-188
½" Roof Board	Plain	0.21	0.71	1.06	0.91	0.88	0.68	0.88	0.90	AB21-132
	Encapsulated	0.15	0.82	1.07	0.98	0.89	0.68	0.93	0.95	AB21-130

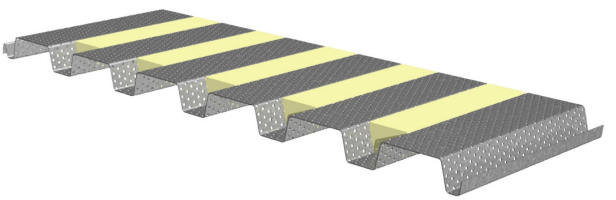
Note:

1. Plain 3.0 pcf fiberglass acoustical insulation standard. Inquire regarding lead time for encapsulated insulation.





•**PLB-36 AC / HSB-36 AC**

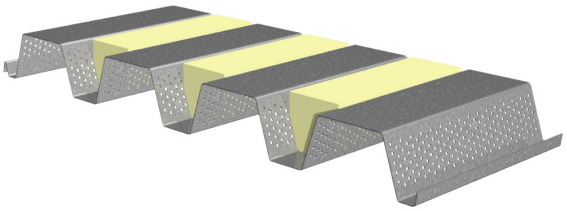


•**PLB-36 FP11 / HSB-36 FP11**

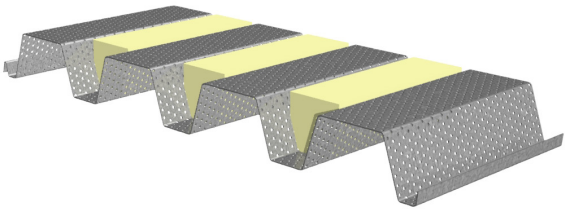
Roof Insulation	AC Insulation	Absorption Coefficients 125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	SSA	NRC	Test. No.
PLB-36 AC / HSB-36 AC										
Poly-Iso	Plain	0.11	0.23	0.66	0.89	0.38	0.24	0.53	0.55	A13-220
	Encapsulated	0.15	0.33	0.65	0.36	0.20	0.19	0.39	0.40	A13-219
Fiberglass	Plain	0.69	1.29	1.11	0.71	0.41	0.22	0.85	0.90	A13-262
	Encapsulated	0.81	0.90	0.56	0.33	0.23	0.23	0.49	0.50	A14-052
½" Roof Board	Plain	0.10	0.33	0.55	0.90	0.42	0.23	0.55	0.55	A14-047
PLB-36 FP11 / HSB-36 FP11										
Poly-Iso	Plain	0.09	0.21	0.37	0.65	0.63	0.54	0.45	0.45	A13-221
	Encapsulated	0.09	0.20	0.54	0.75	0.55	0.48	0.49	0.50	A13-222
Fiberglass	Plain	0.33	0.92	1.20	1.02	1.02	0.90	1.02	1.05	A13-254
	Encapsulated	0.36	1.00	1.26	1.02	0.89	0.74	1.04	1.05	A13-253

Note:

1. Plain 0.75 pcf fiberglass acoustical insulation standard for all B decks. Inquire regarding lead time for encapsulated insulation.



•PLN3-32 AC / HSN3-32 AC

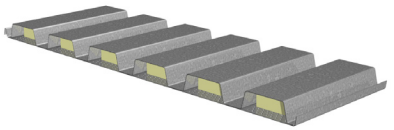


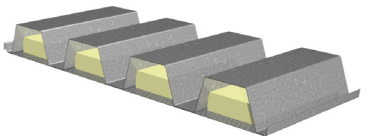
•PLN3-32 FP11 / HSN3-32 FP11

Roof Insulation	AC Insulation	Absorption Coefficients 125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	SSA	NRC	Test. No.
PLN3-32 AC / HSN3-32 AC										
Poly-Iso	Plain	0.18	0.44	0.86	0.94	0.51	0.36	0.66	0.70	A13-214
	Encapsulated	0.25	0.71	1.16	0.67	0.44	0.27	0.71	0.75	A13-216
Fiberglass	Plain	0.69	1.32	1.16	0.93	0.49	0.30	0.94	1.00	A13-265
	Encapsulated	0.86	1.32	1.07	0.63	0.38	0.31	0.83	0.85	A14-053
½" Roof Board	Plain	0.27	0.56	0.84	0.88	0.52	0.36	0.69	0.70	A14-048
PLN3-32 FP11 / HSN3-32 FP11										
Poly-Iso	Plain	0.19	0.44	0.76	0.82	0.72	0.72	0.67	0.70	A13-217
	Encapsulated	0.15	0.51	0.93	0.89	0.68	0.64	0.75	0.75	A13-218
Fiberglass	Plain	0.64	1.03	1.05	1.01	1.02	0.84	1.01	1.05	A13-266
	Encapsulated	0.44	0.97	1.06	0.95	0.99	0.92	1.01	1.00	A14-054

Note:

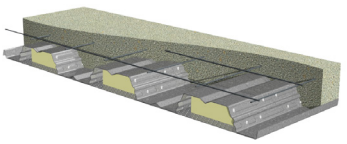
1. Plain 0.75 pcf fiberglass acoustical insulation standard for all N decks. Inquire regarding lead time for encapsulated insulation.

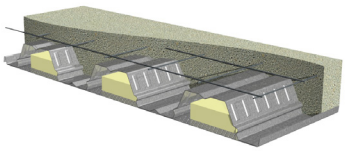




- **PLBCD-36 AC / HSBCD-36 AC ROOF DECK**
- **PLBCD-36 AC/BCD-36 AC FORMLOK DECK**
- **PLN3CD-32 AC / HSN3CD-32 AC ROOF DECK**
- **PLN3CD-32 AC / N3CD-32 AC FORMLOK DECK**

Roof Insulation	AC Insulation	Absorption Coefficients 125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	SSA	NRC	Test. No.
PLBCD-36 AC / HSBCD-36 AC ROOF DECK OR PLBCD-36 AC / BCD-36 AC FORMLOK DECK										
Poly-Iso	Plain	0.17	0.60	0.91	1.06	0.76	0.53	0.82	0.85	A13-251
	Encapsulated	0.34	0.53	0.76	0.55	0.40	0.33	0.57	0.55	A13-249
PLN3CD-32 AC / HSN3CD-32 AC ROOF DECK OR PLN3CD-32 AC / N3CD-32 AC FORMLOK DECK										
Poly-Iso	Plain	0.58	0.70	1.16	0.93	0.79	0.63	0.90	0.90	A13-234
	Encapsulated	0.54	0.70	0.92	0.67	0.50	0.33	0.70	0.70	A13-237





- **PLW2CD-36 AC FORMLOK DECK**
- **PLW3CD-36 AC FORMLOK DECK**

Roof Insulation	AC Insulation	Absorption Coefficients 125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	SSA	NRC	Test. No.
PLW2CD-36 AC FORMLOK DECK										
Poly-Iso	Plain	0.32	0.55	0.79	0.89	0.62	0.48	0.71	0.70	A13-242
	Encapsulated	0.34	0.53	0.98	0.78	0.45	0.32	0.69	0.70	A13-241
PLW3CD-36 AC FORMLOK DECK										
Poly-Iso	Plain	0.50	0.77	0.98	0.77	0.62	0.50	0.77	0.80	A13-245
	Encapsulated	0.46	0.74	1.09	0.68	0.55	0.34	0.76	0.75	A13-247

Note:

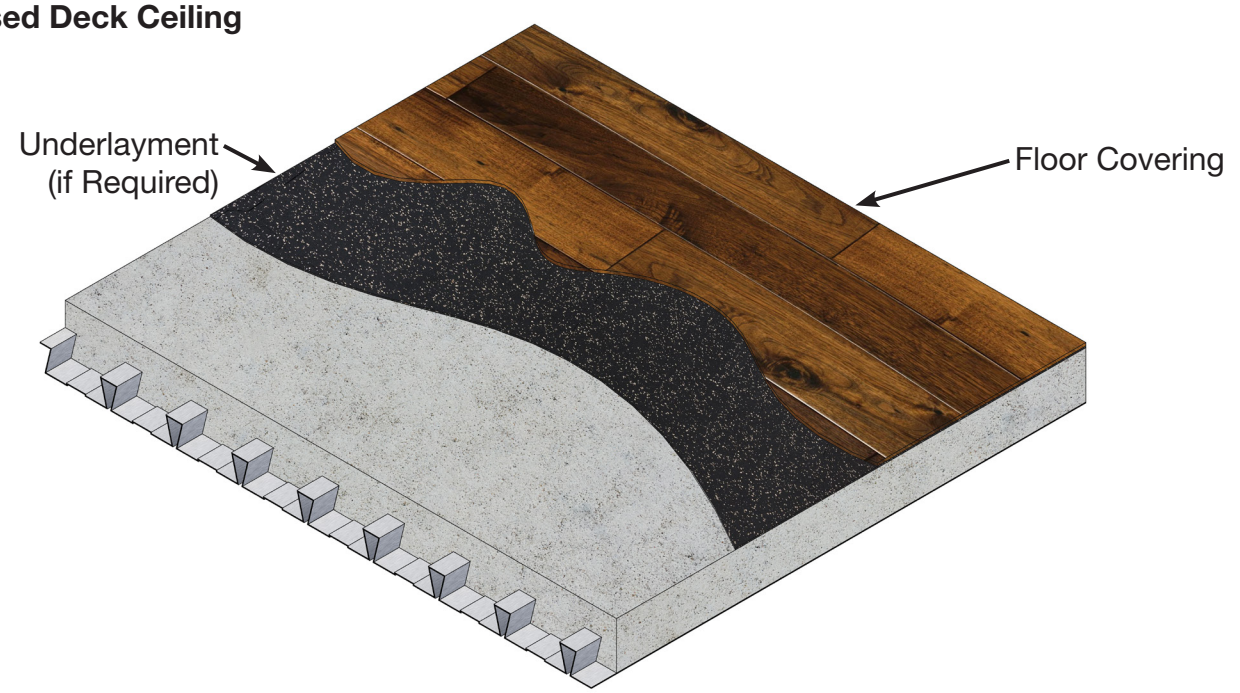
1. Factory installed plain 1.5 pcf fiberglass acoustical insulation standard for all cellular decks. Inquire regarding lead time for encapsulated insulation.

2” DOVETAIL DECK-SLAB
ACOUSTICAL SOLUTIONS

ACHIEVE QUIET SPACES WITH PREMIUM FINISHES BY USING THE SUPERIOR STC AND IIC RATINGS OF 2” DOVETAIL DECK-SLABS

2.0DS-30 FL, 2.0DF-30 FL, 2.0D FORMLOK® DECK-SLAB

- **2” Deep Composite Deck**
- **5½” Total Slab Depth**
- **Lightweight Concrete (110 pcf)**
- **Exposed Deck Ceiling**

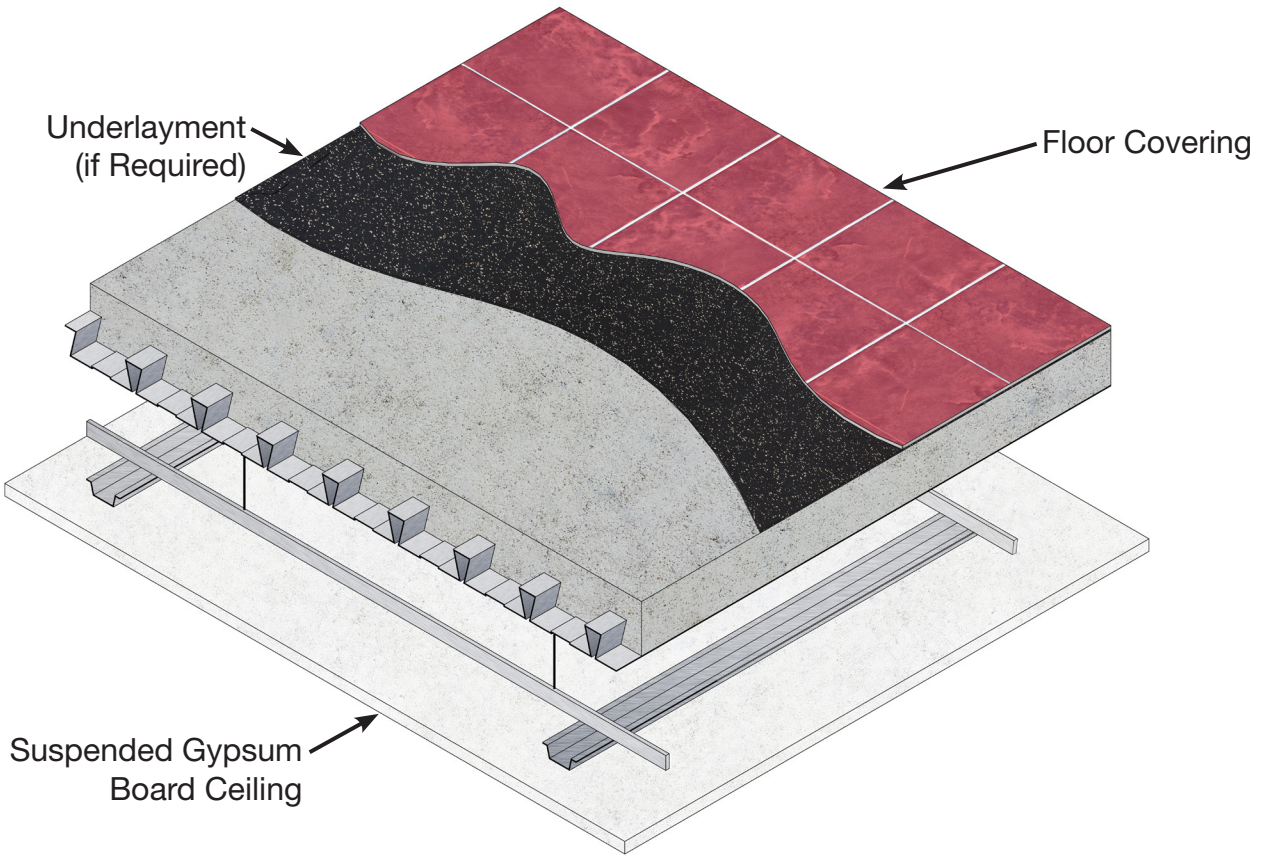


Exposed Deck (No Ceiling)

Floor Covering	Underlayment	STC	IIC	Intertek Test No.
2 mm Shaw Expo Luxury Vinyl Tile	None	**50**	**35**	R8962.02
5 mm Shaw Soundscape LVT	Integrated Pad	**50**	**52**	R8962.03
7 mm Shaw Como Plus LVP	Integrated Pad	**50**	**51**	R8967.02
8.4 mm Shaw Engineered Wood	5 mm ECORE Rubber	**50**	**50**	R8962.05
Exposed Concrete	None	**52**	**26**	R8962.01

2.0DS-30 FL, 2.0DF-30 FL, 2.0D FORMLOK® DECK-SLAB

- **2” Deep Composite Deck**
- **5½” Total Slab Depth**
- **Lightweight Concrete (110 pcf)**
- **Suspended Gypsum Board Ceiling (Without Insulation)**

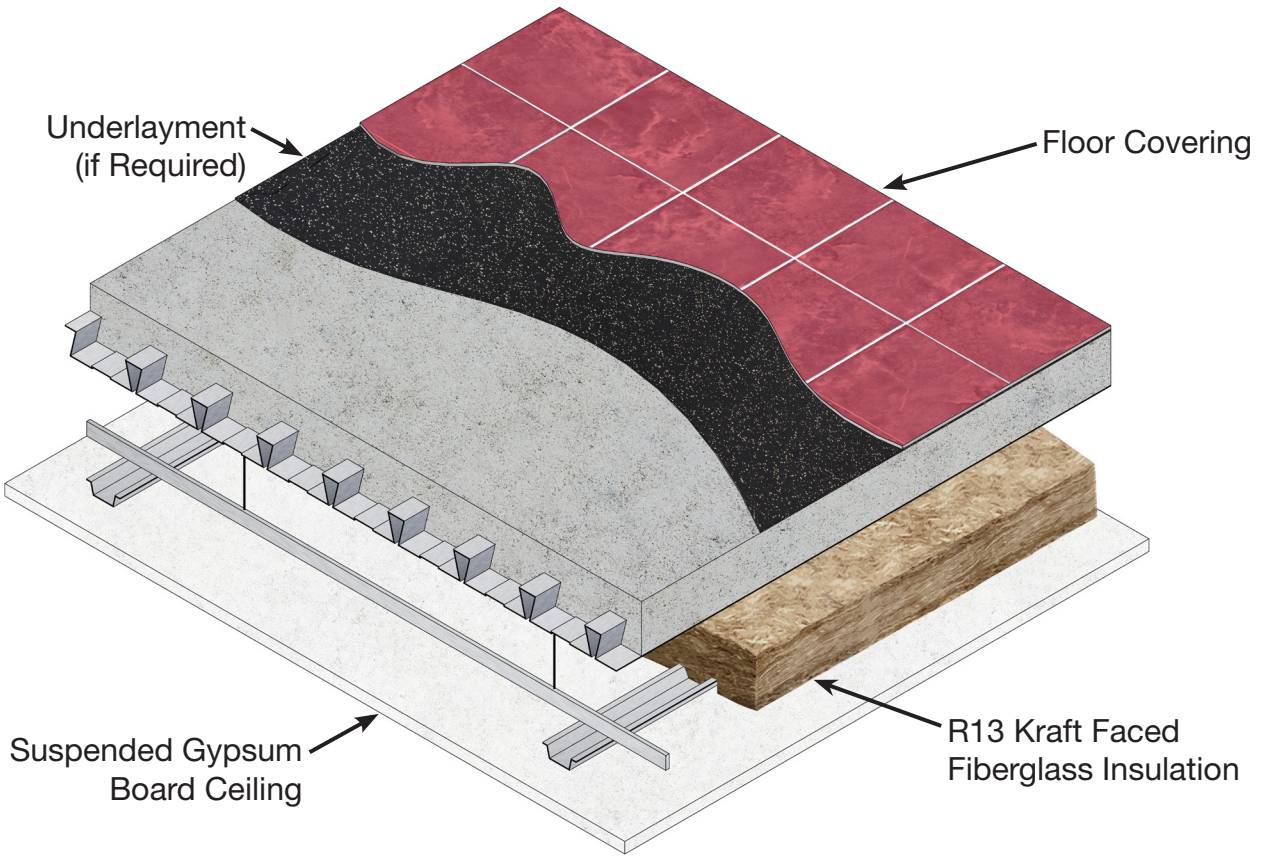


Suspended Gypsum Board Ceiling

Floor Covering	Underlayment	STC	IIC	Intertek Test No.
5 mm Shaw Soundscape LVT	Integrated Pad	**61**	**61**	R8968.02
7 mm Shaw Como Plus LVP	Integrated Pad	**60**	**60**	R8968.03
8.4 mm Shaw Engineered Wood	ECORE Rubber	**60**	**60**	R8968.04
Shaw Residential Carpet	6 lbs. Rebond Pad	**62**	**85**	R8968.05
Exposed Concrete	None	**62**	**43**	R8968.01

2.0DS-30 FL, 2.0DF-30 FL, 2.0D FORMLOK® DECK-SLAB

- **2” Deep Composite Deck**
- **5½” Total Slab Depth**
- **Lightweight Concrete (110 pcf)**
- **Suspended Gypsum Board Ceiling**



Suspended Gypsum Board Ceiling

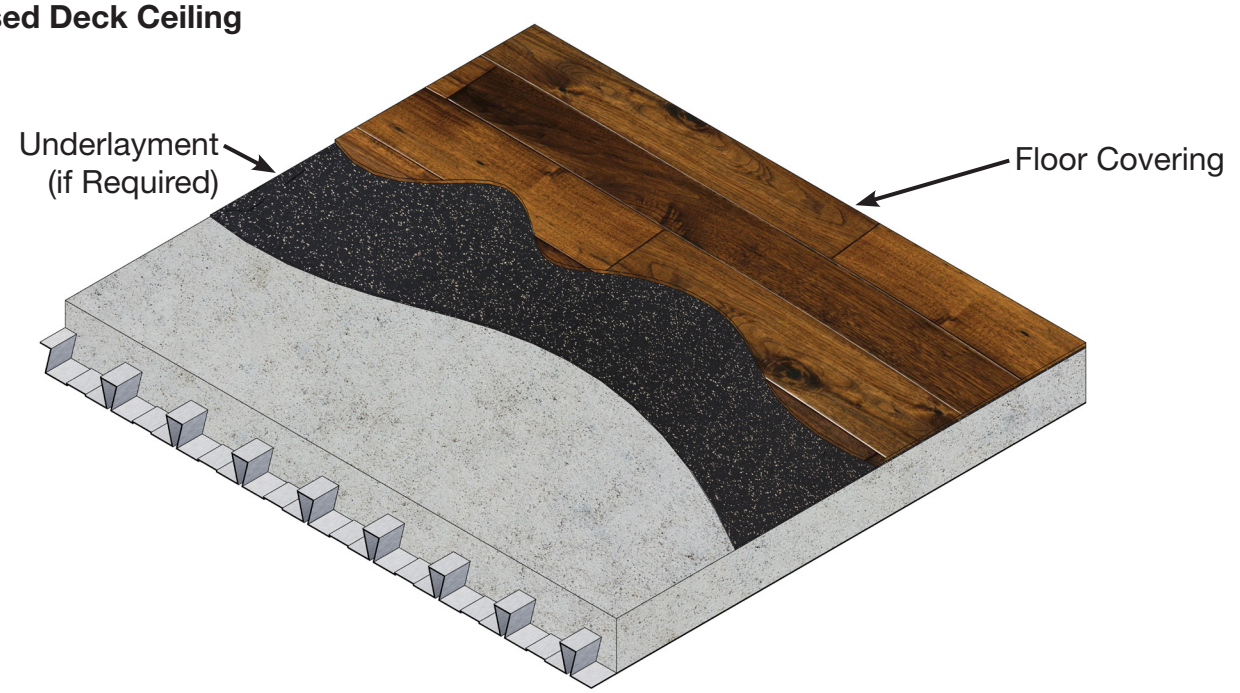
Floor Covering	Underlayment	STC	IIC	Intertek Test No.
2 mm Shaw Expo Luxury Vinyl Tile	None	**61**	**48**	R8962.07
5 mm Shaw Soundscape LVT	Integrated Pad	**61**	**63**	R8962.08
7 mm Shaw Como Plus LVP	Integrated Pad	**60**	**63**	R8962.09
8.4 mm Shaw Engineered Wood	ECORE Rubber	**61**	**63**	R8962.10
Exposed Concrete	None	**62**	**43**	R8962.06

Note:

1. Laboratory tests determining STC and IIC for Dovetail FormLok deck with a suspended ceiling were conducted with ceramic tile and underlayment. Adding a suspended ceiling to the ceramic tile assembly improved the STC rating by 11 and the IIC rating by 19 compared to an assembly with no ceiling. Other flooring types can expect similar improvement in performance.

2.0DS-30 FL, 2.0DF-30 FL, 2.0D FORMLOK® DECK-SLAB

- **2” Deep Composite Deck**
- **5½” Total Slab Depth**
- **Normal Weight Concrete (145 pcf)**
- **Exposed Deck Ceiling**

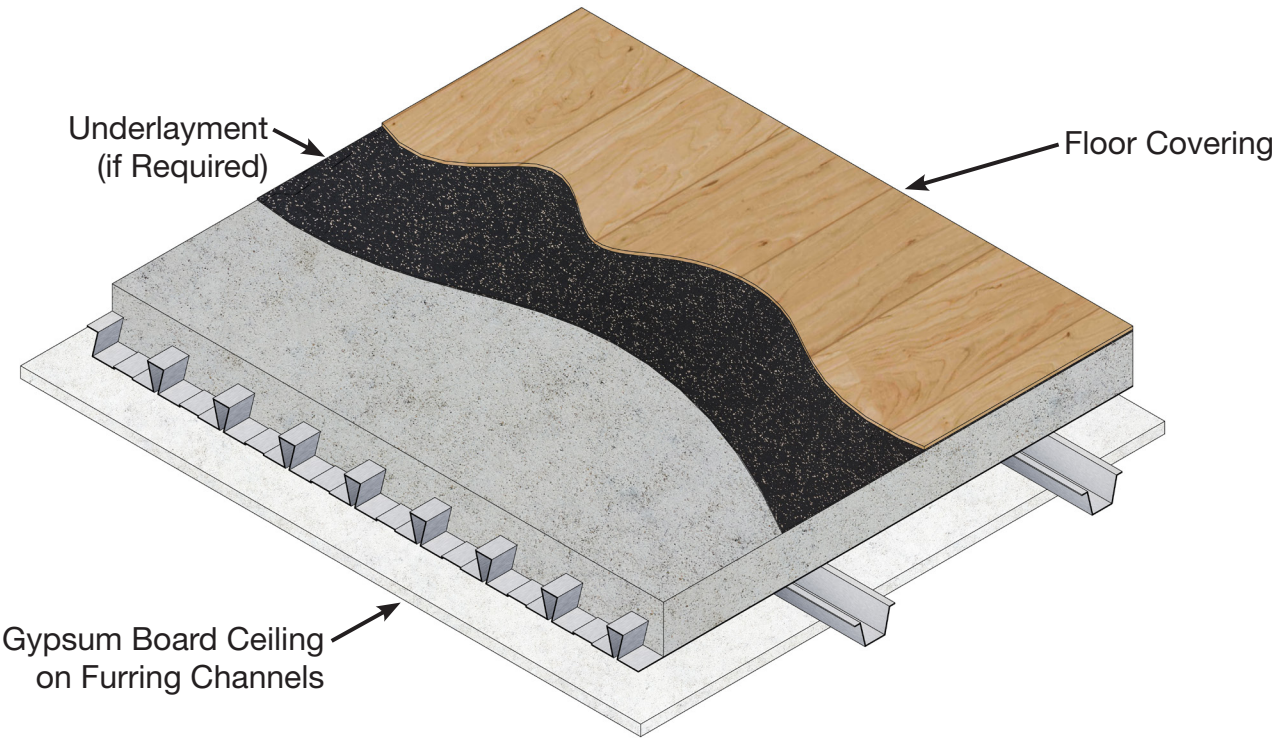


Exposed Deck (No Ceiling)

Floor Covering	Underlayment	STC	IIC	Intertek Test No.
Attain Luxury Vinyl Tile	5 mm ECOsilence	**52**	**51**	H7786.03
Fusion Hybrid Vinyl Plank	2 mm ECOsilence	**46**	**51**	H7786.02
5 mm Shaw Soundscape LVT	Integrated Pad	**51**	**53**	R8967.02
7 mm Shaw Como Plus LVP	Integrated Pad	**50**	**53**	R8967.03
8.4 mm Shaw Engineered Wood	5 mm ECORE Rubber	**51**	**55**	R8967.04
Ceramic Tile	5 mm ECOsilence	**51**	**41**	H7786.06
Engineered Wood	5 mm ECOsilence	**50**	**50**	H7786.05
Forest Rx Rubber Backed Sheet Vinyl	None	**51**	**51**	H7786.04
Shaw Residential Carpet	6 lbs Rebond Pad	**53**	**83**	R8967.05
Exposed Concrete	None	**53**	**27**	R8967.01
Exposed Concrete	None	**52**	**23**	H7786.01

2.0DS-30 FL, 2.0DF-30 FL, 2.0D FORMLOK® DECK-SLAB

- **2” Deep Composite Deck**
- **5½” Total Slab Depth**
- **Normal Weight Concrete (145 pcf)**
- **Gypsum Board Ceiling**



Gypsum Board Ceiling on Furring Channels Directly Attached to Deck

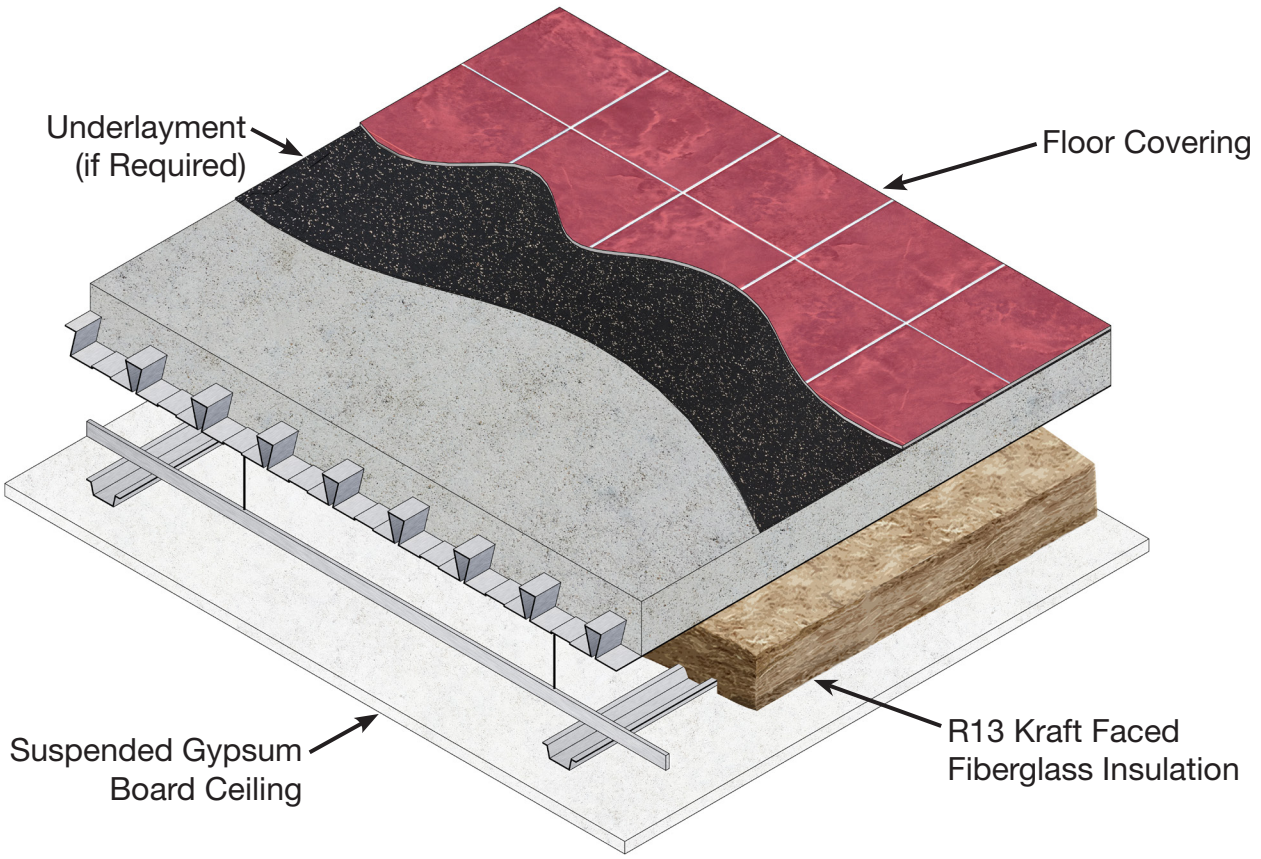
Floor Covering	Underlayment	STC	IIC	Intertek Test No.
Ceramic Tile	5 mm ECOsilence	**53**	**47**	H7786.12
Engineered Wood	5 mm ECOsilence	**50**	**50**	H7786.11
Fusion Hybrid Vinyl Plank	2 mm ECOsilence	**51**	**50**	H7786.08
Attain Luxury Vinyl Tile	2 mm ECOsilence	**52**	**50**	H7786.09
Forest Rx Rubber Backed Sheet Vinyl	None	**50**	**50**	H7786.10
Exposed Concrete	None	**52**	**32**	H7786.07

Note:

1. Values shown are for gypsum board on furring channels directly connected to the underside of the slab. Gypsum board ceilings attached to the deck by methods providing acoustical separation will provide improved STC and IIC values.

2.0DS-30 FL, 2.0DF-30 FL, 2.0D FORMLOK® DECK-SLAB

- **2” Deep Composite Deck**
- **5½” Total Slab Depth**
- **Normal Weight Concrete (145 pcf)**
- **Suspended Gypsum Board Ceiling**



Suspended Gypsum Board Ceiling

Floor Covering	Underlayment	STC	IIC	Intertek Test No.
Ceramic Tile	5 mm ECOsilence	**62**	**60**	I5133.01

Note:

1. Laboratory tests determining STC and IIC for Dovetail FormLok deck with a suspended ceiling were conducted with ceramic tile and underlayment. Adding a suspended ceiling to the ceramic tile assembly improved the STC rating by 11 and the IIC rating by 19 compared to an assembly with no ceiling. Other flooring types can expect similar improvement in performance.

2” DOVETAIL DECK-SLAB

Notes:

1. The acoustical test reports with complete assembly details are available from vercodeck.com.

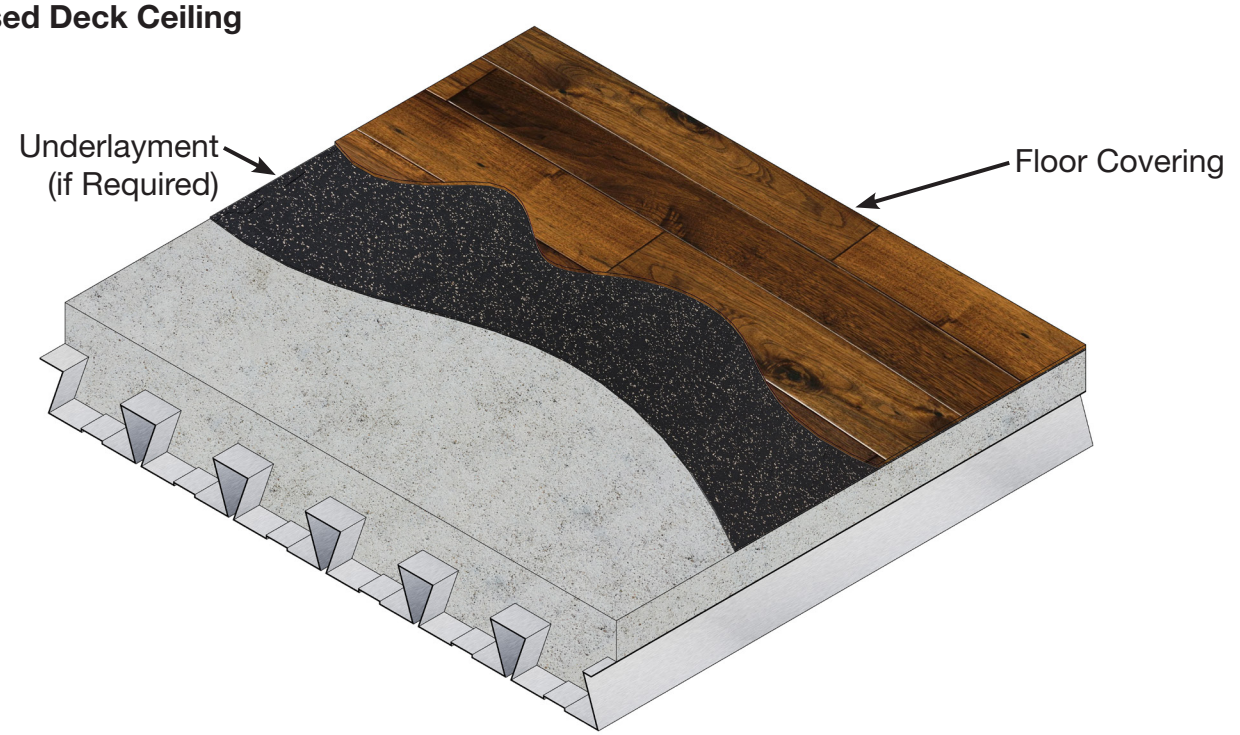
2. The testing was performed in accordance with the following standards:
   - **ASTM E90-09 (2016)**, *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions*
   - **ASTM E492-09(2016)e1,** *Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine*

3.5” DOVETAIL DECK-SLAB
ACOUSTICAL SOLUTIONS

ACHIEVE QUIET SPACES WITH PREMIUM FINISHES BY USING THE SUPERIOR STC AND IIC RATINGS OF 3.5” DOVETAIL DECK-SLABS

3.5DS-30 FL, 3.5DF-30 FL, 3.5D FORMLOK® DECK-SLAB

- **3½” Deep Composite Deck**
- **6” Total Slab Depth**
- **Lightweight Concrete (110 pcf)**
- **Exposed Deck Ceiling**

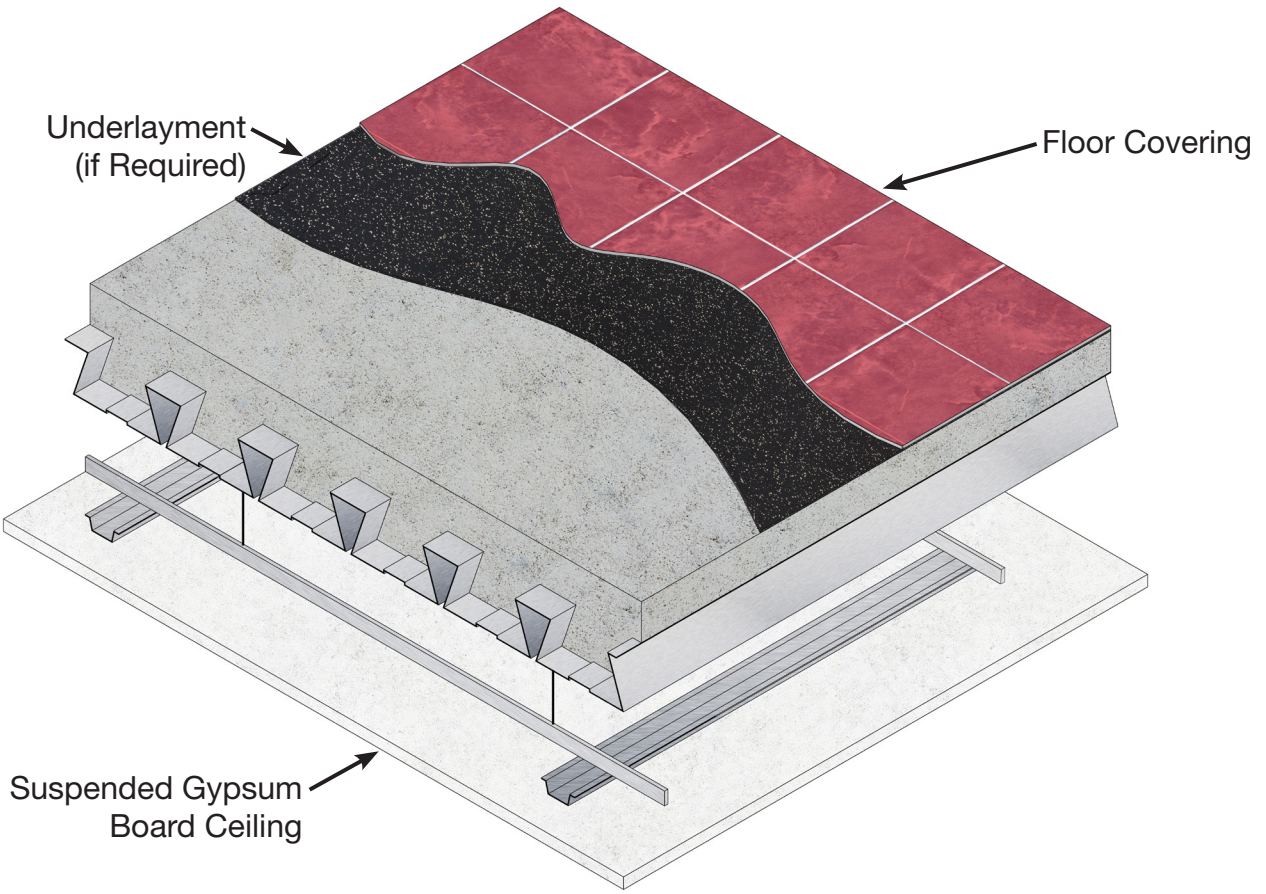


Exposed Deck (No Ceiling)

Floor Covering	Underlayment	STC	IIC	Intertek Test No.
5 mm Shaw Soundscape LVT	Integrated Pad	**50**	**53**	R8963.02
7 mm Shaw Como Plus LVP	Integrated Pad	**50**	**51**	R8963.03
8 mm Shaw EcoLogix Carpet Tile	Integrated Pad	**52**	**61**	R8963.05
8.4 mm Shaw Engineered Wood	5 mm ECORE Rubber Underlayment	**50**	**50**	R8963.04
Exposed Concrete	None	**52**	**23**	R8963.01

3.5DS-30 FL, 3.5DF-30 FL, 3.5D FORMLOK® DECK-SLAB

- **3½” Deep Composite Deck**
- **6” Total Slab Depth**
- **Lightweight Concrete (110 pcf)**
- **Suspended Gypsum Board Ceiling (Without Insulation)**



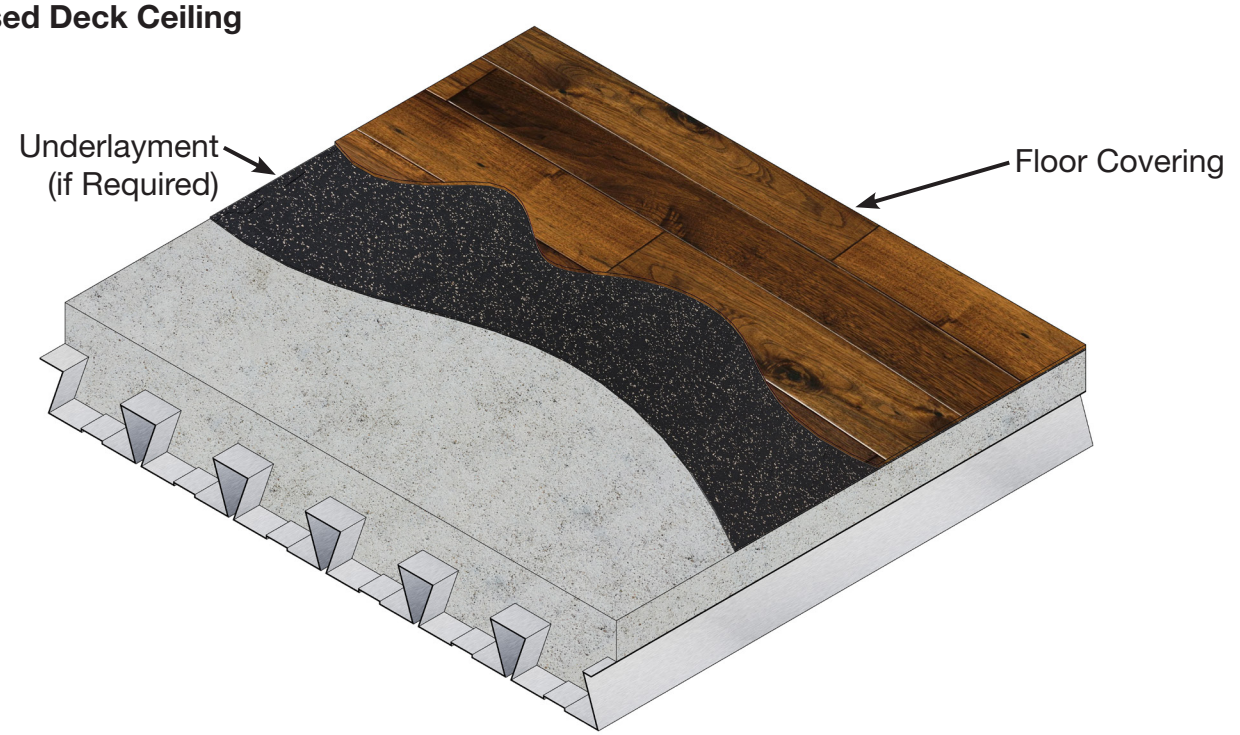
Suspended Gypsum Board Ceiling

Floor Covering	Underlayment	STC	IIC	Intertek Test No.
5 mm Shaw Soundscape LVT	Integrated Pad	**61**	**62**	R8971.02
7 mm Shaw Como Plus LVP	Integrated Pad	**59**	**60**	R8971.03
Ceramic Tile	5 mm ECORE Rubber Underlayment	**60**	**55**	R8971.05
Shaw Residental Carpet	6 lbs. Rebond Pad	**61**	**87**	R8971.04
Exposed Concrete	None	**61**	**40**	R8971.01

3.5” DOVETAIL DECK-SLAB
ACOUSTICAL SOLUTIONS

3.5DS-30 FL, 3.5DF-30 FL, 3.5D FORMLOK® DECK-SLAB

- **3½” Deep Composite Deck**
- **6” Total Slab Depth**
- **Normal Weight Concrete (145 pcf)**
- **Exposed Deck Ceiling**

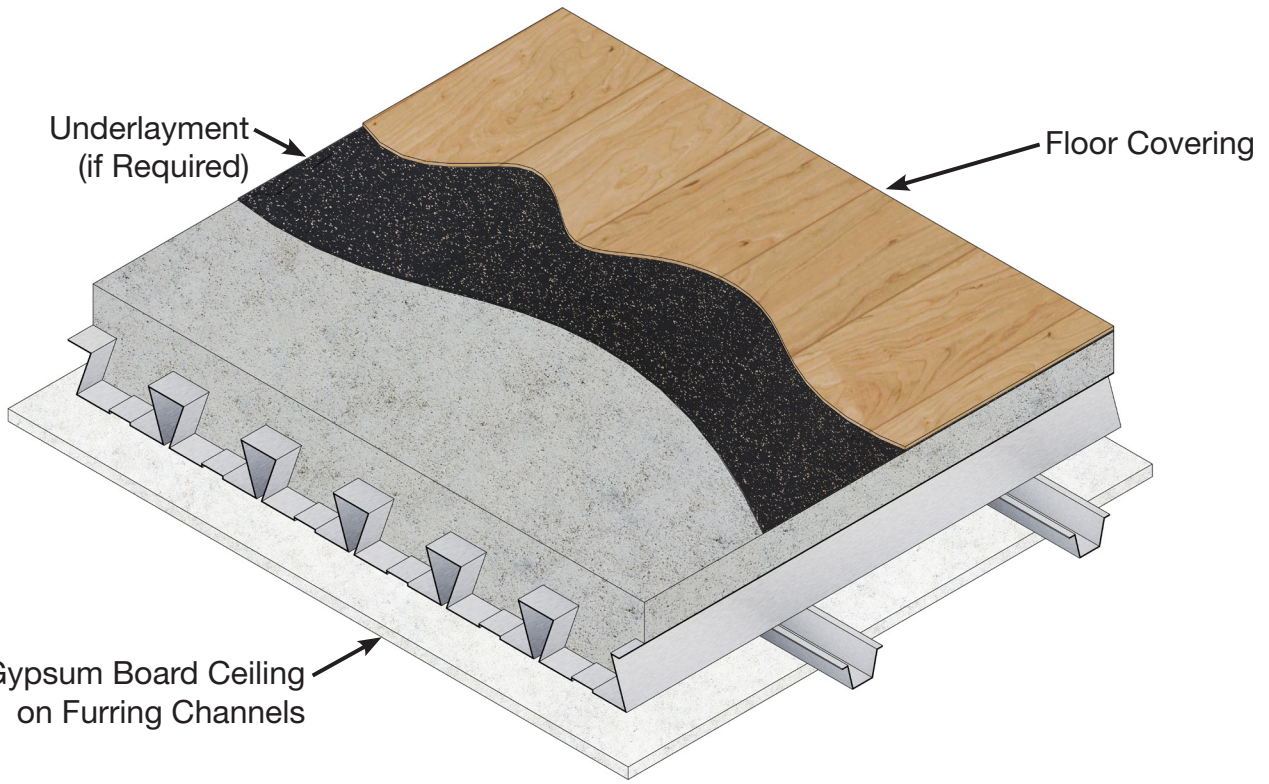


Exposed Deck (No Ceiling)

Floor Covering	Underlayment	STC	IIC	Intertek Test No.
Ceramic Tile	5 mm ECOsilence	**50**	**42**	H7787.06
Engineered Wood	5 mm ECOsilence	**45**	**46**	H7787.05
Fusion Hybrid Vinyl Plank	2 mm ECOsilence	**47**	**47**	H7787.02
Attain Luxury Vinyl Tile	5 mm ECOsilence	**50**	**50**	H7787.03
Forest Rx Rubber Backed Sheet Vinyl	None	**49**	**49**	H7787.04
5 mm Shaw Soundscape Glue-down LVT	Integrated Pad	**53**	**56**	R8969.02
5.5 mm Shaw EcoWorx Carpet Tile	None	**52**	**57**	R8969.04
8.4 mm Shaw Engineered Wood	5 mm ECORE Rubber	**50**	**54**	R8969.03
Ceramic Tile	5 mm ECORE Rubber	**53**	**38**	R8969.05
Exposed Concrete	None	**54**	**24**	R8969.01
Exposed Concrete	None	**50**	**24**	H7787.01

3.5DS-30 FL, 3.5DF-30 FL, 3.5D FORMLOK® DECK-SLAB

- **3½” Deep Composite Deck**
- **6” Total Slab Depth**
- **Normal Weight Concrete (145 pcf)**
- **Gypsum Board Ceiling**



Gypsum Board Ceiling on Furring Channels Directly Attached to Deck

Floor Covering	Underlayment	STC	IIC	Intertek Test No.
Ceramic Tile	5 mm ECOsilence	**56**	**49**	H7787.12
Engineered Wood	5 mm ECOsilence	**55**	**52**	H7787.11
Fusion Hybrid Vinyl Plank	2 mm ECOsilence	**55**	**53**	H7787.08
Attain Luxury Vinyl Tile	5 mm ECOsilence	**56**	**52**	H7787.09
Forest Rx Rubber Backed Sheet Vinyl	None	**55**	**52**	H7787.10
Exposed Concrete	None	**55**	**32**	H7787.07

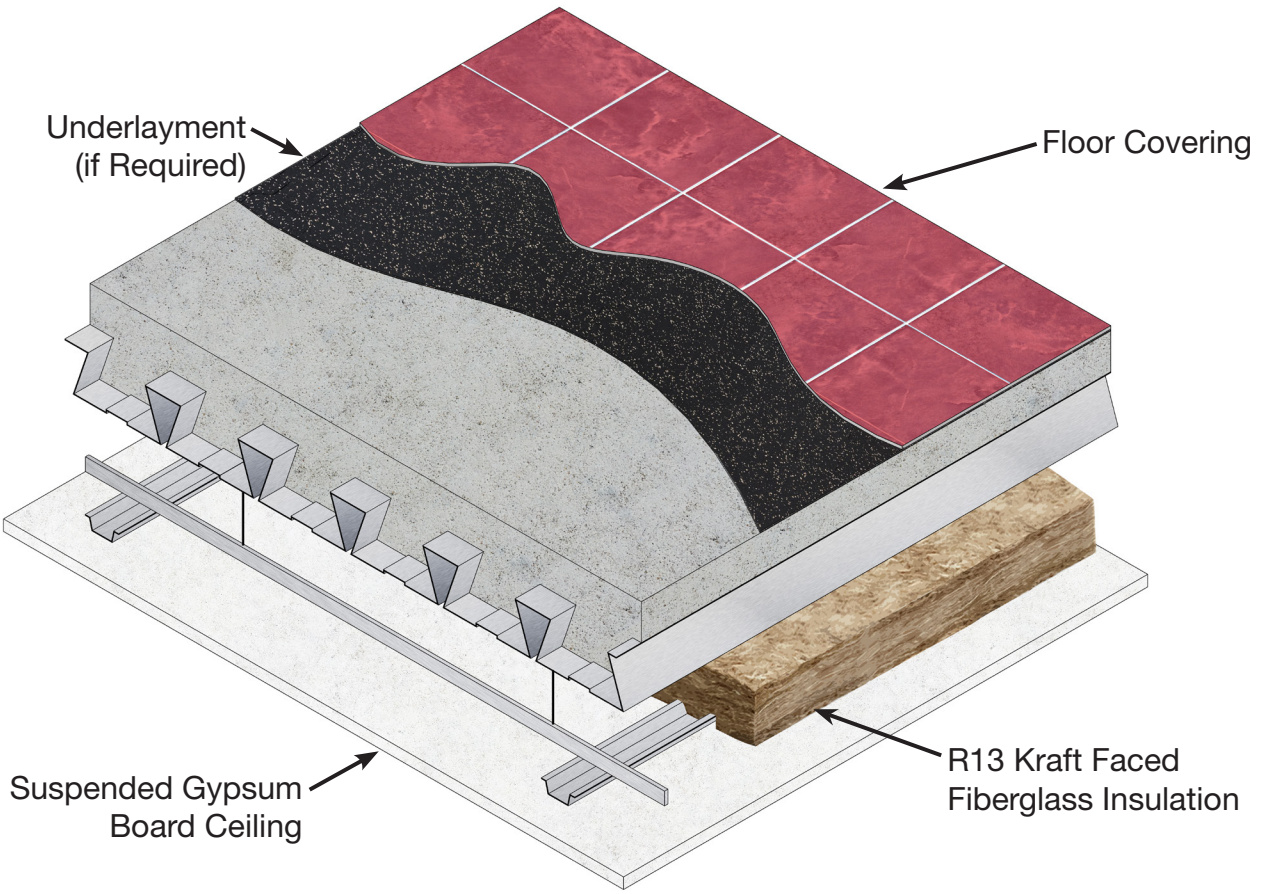
Note:

1. Values shown are for gypsum board on furring channels directly connected to the underside of the slab. Gypsum board ceilings attached to the deck by methods providing acoustical separation will provide improved STC and IIC values.

3.5” DOVETAIL DECK-SLAB
ACOUSTICAL SOLUTIONS

3.5DS-30 FL, 3.5DF-30 FL, 3.5D FORMLOK® DECK-SLAB

- **3½” Deep Composite Deck**
- **6” Total Slab Depth**
- **Normal Weight Concrete (145 pcf)**
- **Suspended Gypsum Board Ceiling**



Suspended Gypsum Board Ceiling

Floor Covering	Underlayment	STC	IIC	Intertek Test No.
Ceramic Tile	5 mm ECOsilence	**62**	**62**	I5133.02

Note:

1. Laboratory tests determining STC and IIC for Dovetail FormLok deck with a suspended ceiling were conducted with ceramic tile and underlayment. Adding a suspended ceiling to the ceramic tile assembly improved the STC rating by 12 and the IIC rating by 20 compared to an assembly with no ceiling. Other flooring types can expect similar improvement in performance.

3.5” DOVETAIL DECK-SLAB

Notes:

1. The acoustical test reports with complete assembly details are available from vercodeck.com.

2. The testing was performed in accordance with the following standards:
   - **ASTM E90-09 (2016)**, *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions*
   - **ASTM E492-09(2016)e1,** *Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine*

DOVETAIL DECK
FINISH SOLUTIONS

MULTIPLE DOVETAIL DECK FINISHES PROVIDE FREEDOM TO CHOOSE THE RIGHT SOLUTION FOR YOUR PROJECT

VISION ↓	SPECIFY ↓	SOLUTION ↓
Accentuate the sleek lines of Dovetail deck with factory applied standard white finish paint or the custom color of your choice.	Enhanced 2-coat polyester paint	Enhanced 2-Coat polyester paint is factory applied to chemically cleaned and pre-treated G90 galvanized steel prior to roll forming steel deck. Select from manufacturer's standard off-white (Sherwin-Williams PMW7512) or a wide range of custom colors. Color-matched aerosol touch-up paint is available.
Follow your vision, choose any color or texture imaginable with the field applied finish paint system of your choice on Dovetail deck.	Primer Paint	Factory applied oven-cured polyester primer paint on chemically cleaned and pre-treated G90 galvanized steel ensures a high quality finish. Primer paint provided in manufacturer's standard off-white color. This paint is intended to be field coated. It is recommended that compatibility of field applied finish paint with factory applied primer paint be established prior to application of finish paint system.
Capture the industrial-retro feeling with an exposed metallic G-90 finish on Dovetail deck.	G90 Galvanized	ASTM A653 SS Grade 50 (min.) steel with G90 galvanized coating.
Protect the Dovetail deck in natatoriums and other demanding (harsh, humid, corrosive) environments.	Tnemec or Sherwin-Williams field applied coatings with Enhanced 2-coat polyester paint	The High Performance Paint solution utilizes the factory applied Enhanced 2-Coat polyester paint in combination with field applied Tnemec or Sherwin-Williams finishes designed specifically for demanding (harsh, humid, corrosive) environments. Contact us for suggested field finish specifications.

DOVETAIL DECK
COATING SYSTEM

DOVETAIL DECK COATING SOLUTIONS BY SHERWIN-WILLIAMS

Created to withstand most anything that comes its way, our specially formulated polyester coating is designed to go where it will be abused—maintaining extreme resistance to abrasion, chipping and marring with tremendous color and gloss retention.

VULCRAFT/VERCO GROUP

They continue to build their reputation as the leading producer of steel deck, providing architectural deck as a part of your structural steel package.

COATING APPLICATIONS

- Gymnasiums
- Auditoriums
- Schools
- Commercial and residential interior use

SUBSTRATES

A653 and A1063 Hot-Dipped Galvanized (HDG) Steel with G90 coating.

COLORS

Dovetail steel deck is available in a standard white, color code PMW7512. Custom colors are available but a minimum order size will apply. Contact your Verco sales office for information and lead times.

TOUCHUP COATING

Field applied color-matched aerosol touchup to repair scratches and nicks of factory applied coatings available through your local Sherwin-Williams supplier.

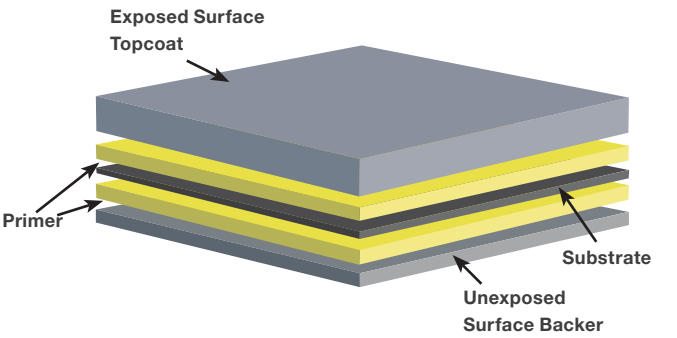
SHERWIN-WILLIAMS®
Coil Coatings

coil.sherwin.com or call (888) 306-2645

VERCO DECKING, INC.
a NUCOR company

COMMITMENT TO QUALITY

Dovetail Deck coatings are proven through rigorous performance testing.



POLYESTER COIL COATING SYSTEM

Number of Coats	Dry Film Thickness (DFT)		Total Exposed DFT:	
	Primer	Exposed Surface Topcoat		Unexposed Backer
2-Coat	0.2–0.3 mils	0.7-0.8 mils	0.9-1.1 mils	0.3–0.4 mils

PERFORMANCE TESTING	
Application Method	Factory applied continuous coil coating process
Substrate	Hot-Dipped Galvanized (HDG) steel

PHYSICAL TESTING	ASTM[1] TEST METHOD	TEST RESULT
Film Adhesion	ASTM D3359	No removal of film under tape in the cross-hatched area. (Dry, Wet, Boiling Water)
Surface Burning Characteristics	ASTM E84-18A	Flame Spread Index: 0
Humidity Resistance	ASTM D 2247: 100% RH at 100° F for 2,000 hours	No field blisters
Impact Resistance (direct)	ASTM D2794	3X metal thickness inch-pound, no loss of adhesion
Pencil Hardness	ASTM D3363	F minimum.
Salt Spray	ASTM B117: 1,000 Hours	Creep from scribe = 1.5mm and edge = 4.5mm, no surface blistering #10 rating
Specular Gloss 60°	ASTM D523	15-50
T-Bends	ASTM D4145[2]	2T, no loss of adhesion.

[1]American Society for Testing and Materials. [2]Coatings are not designed to bridge cracks in the substrate. The coatings provided with Verco/Vulcraft deck will generally meet the requirements for most post-painted fabrication processes. However, variations in metal quality, thickness or cleaning/pretreatment applications can lead to diminished flexibility in the coating.

For details and health, safety and handling information, Material Safety Data Sheets (MSDS) are available at coil.sherwin.com.

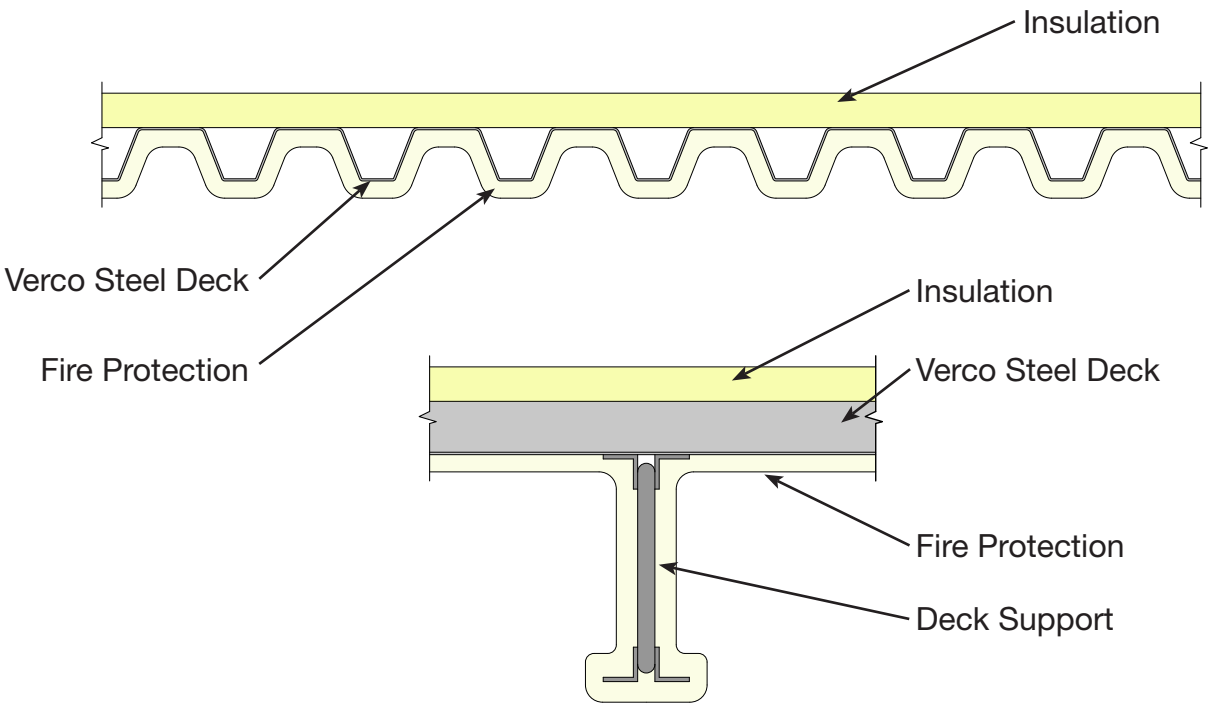
SHERWIN-WILLIAMS
Coil Coatings

VERCO DECKING, INC.
a NUCOR company

coil.sherwin.com or call (888) 306-2645

USE UL RECOGNIZED VERCO ROOF DECKS FOR YOUR FIRE RATED ASSEMBLIES

- **Verco steel decks may be used in assemblies which are required to meet hourly fire ratings. Approved hourly fire rated assemblies are a combination of specific proprietary materials as listed in UL fire resistance ratings.**



Refer to the table below for a listing of UL fire-rated assemblies utilizing Verco steel deck profiles. Refer to the particular UL assembly being considered for full details of construction, including specific information about fill or fireproofing thicknesses and span limitations.

UL Fire Resistance Ratings

Restrained Assembly Ratings (hr.)	UL Design No.	Unrestrained Assembly Ratings (hr.)	Support Type	Fire Protection	Insulation Type	Deck Type						
						B	N3	W2	W3	SV	DV	D
1, 1½ or 2	L701	1, 1½ or 2	Beam/Joist	SFRM	Wood Fiber Board	✓	✓	✓	✓			
1 or 1½	P225	1 or 1½	Beam/Joist/ Joist Girder	Acoustical Material	Rigid Insulation	✓	✓				✓	
1 or 1½	P230	1 or 1½	Beam/Joist/ Joist Girder	Acoustical Material	Rigid Insulation	✓					✓	
1	P518	1	CFS	Gypsum Board	Gypsum Board	✓				✓	✓	
1, 1½ or 2	P701	1, 1½ or 2	Beam/Joist/ Joist Girder	SFRM	Rigid Insulation	✓	✓					

(Continued on Next Page.)

UL Fire Resistance Ratings (continued)

Restrained Assembly Ratings (hr.)	UL Design No.	Unrestrained Assembly Ratings (hr.)	Support Type	Fire Protection	Insulation Type	Deck Type						
						B	N3	W2	W3	SV	DV	D
1, 1½ or 2	P711	1, 1½ or 2	Beam/Joist/ Joist Girder	SFRM	Rigid Insulation	✓	✓					
1, 1½ or 2	P717	1, 1½ or 2	Beam/Joist	SFRM	Rigid Insulation	✓	✓					
1, 1½, 2 or 3	P719	1, 1½, or 2	Beam/Joist/ Joist Girder	SFRM	Rigid Insulation	✓	✓					
1, 1½, 2 or 3	P723	1, 1½, 2 or 3	Beam/Joist	SFRM	Rigid Insulation	✓	✓	✓	✓			
1, 1½ or 2	P726	1, 1½ or 2	Beam/Joist/ Joist Girder	SFRM	Rigid Insulation	✓	✓					
1, 1½, 2 or 3	P732	1, 1½, 2 or 3	Beam/Joist	SFRM	Rigid Insulation	✓	✓					
1, 1½ or 2	P734	1, 1½ or 2	Beam/Joist/ Joist Girder	SFRM	Rigid Insulation	✓	✓					
1, 1½ or 2	P739	1, 1½, or 2	Beam/Joist	SFRM	Rigid Insulation	✓	✓					
1, 1½ or 2	P740	1, 1½ or 2	Beam/Joist	SFRM	Rigid Insulation	✓	✓					
1, 1½ or 2	P741	1, 1½ or 2	Beam/Joist	SFRM	Rigid Insulation	✓	✓					
1, 1½ or 2	P742	1, 1½ or 2	Beam/Joist/ Joist Girder	SFRM	Rigid Insulation	✓	✓					
1, 1½ or 2	P748	1, 1½ or 2	Beam/Joist/ Joist Girder	SFRM	Rigid Insulation	✓	✓					
1, 1½, 2 or 3	P750	1, 1½, 2 or 3	Beam/Joist	SFRM	Rigid Insulation	✓	✓					
1, 1½, 2 or 3	P751	1, 1½, or 2	Beam/Joist/ Joist Girder	SFRM	Rigid Insulation	✓	✓					
1, 1½ or 2	P815	1, 1½ or 2	Beam/Joist/ Joist Girder	SFRM	Rigid Insulation	✓	✓					
1, 1½, 2 or 3	P819	1, 1½, 2 or 3	Beam/Joist	SFRM	Rigid Insulation	✓	✓					
1, 1½ or 2	P829	1, 1½ or 2	Beam/Joist	SFRM	Rigid Insulation	✓	✓					

(Continued on Next Page.)

UL Fire Resistance Ratings (continued)

Restrained Assembly Ratings (hr.)	UL Design No.	Unrestrained Assembly Ratings (hr.)	Support Type	Fire Protection	Insulation Type	Deck Type						
						B	N3	W2	W3	SV	DV	D
1, 1½ or 2	P837	1, 1½ or 2	Beam/Joist/ Joist Girder	SFRM	Rigid Insulation	✓	✓					
1, 1½ or 2	P838	1, 1½ or 2	Beam/Joist	SFRM	Rigid Insulation	✓	✓					
1, 1½, or 2	P907	0	Beam/Joist	None	Insulating Fill	✓	✓			✓	✓	
1, 1½, or 2	P908	1½ or 2	Beam/Joist/ Joist Girder	None	Insulating Fill	✓	✓			✓	✓	✓
1, 1½, or 2	P920	0	Beam/Joist	None	Insulating Fill	✓	✓	✓		✓	✓	
1, 1½ or 2	P921	0	Beam/Joist/ Joist Girder	None	Insulating Fill	✓	✓	✓		✓	✓	✓
1, 1½, or 2	P922	0	Beam/Joist	None	Insulating Fill	✓	✓	✓	✓	✓	✓	
1, 1½, or 2	P923	0	Beam/Joist/ Joist Girder	None	Insulating Fill	✓	✓	✓		✓	✓	
1, 1½, or 2	P925	0	Beam/Joist/ Joist Girder	None	Insulating Fill	✓	✓	✓		✓	✓	
1, 1½ or 2	P926	0	Beam/Joist	None	Insulating Fill	✓	✓			✓	✓	
1, 1½ or 2	P927	1½ or 2	Beam/Joist/ Joist Girder	None	Insulating Fill	✓	✓			✓	✓	
1, 1½ or 2	P928	0	Beam/Joist Girder	None	Insulating Fill	✓	✓	✓		✓	✓	
1, 1½, or 2	P929	0	Beam/Joist/ Joist Girder	None	Insulating Fill	✓	✓	✓		✓	✓	
1, 1½, or 2	P930	0	Beam/Joist	None	Insulating Fill	✓	✓	✓	✓	✓	✓	
1, 1½, or 2	P936	0	Beam/Joist	None	Insulating Fill	✓	✓	✓		✓	✓	
1, 1½, or 2	P937	0	Beam/Joist	None	Insulating Fill	✓	✓	✓		✓	✓	✓
1, 1½, or 2	P938	1½ or 2	Beam/Joist/ Joist Girder	None	Insulating Fill	✓	✓			✓	✓	✓

(Continued on Next Page.)

UL Fire Resistance Ratings (continued)

Restrained Assembly Ratings (hr.)	UL Design No.	Unrestrained Assembly Ratings (hr.)	Support Type	Fire Protection	Insulation Type	Deck Type						
						B	N3	W2	W3	SV	DV	D
1, 1½, or 2	P939	0	Beam/Joist	None	Insulating Fill	✓	✓	✓		✓	✓	
1, 1½, or 2	P940	0	Beam/Joist/ Joist Girder	None	Insulating Fill	✓	✓	✓	✓	✓	✓	
1, 1½, or 2	P943	0	Beam/Joist	None	Insulating Fill	✓	✓	✓	✓	✓	✓	
1, 1½, or 2	P944	0	Beam/Joist	None	Insulating Fill	✓	✓	✓				
1, 1½, or 2	P945	0	Beam/Joist/ Joist Girder	None	Insulating Fill	✓	✓	✓		✓	✓	
1, 1½, or 2	P947	0	Beam/Joist	None	Insulating Fill	✓	✓	✓		✓	✓	

Notes:

1. Refer to the UL “Fire Resistance Directory” for necessary construction details.

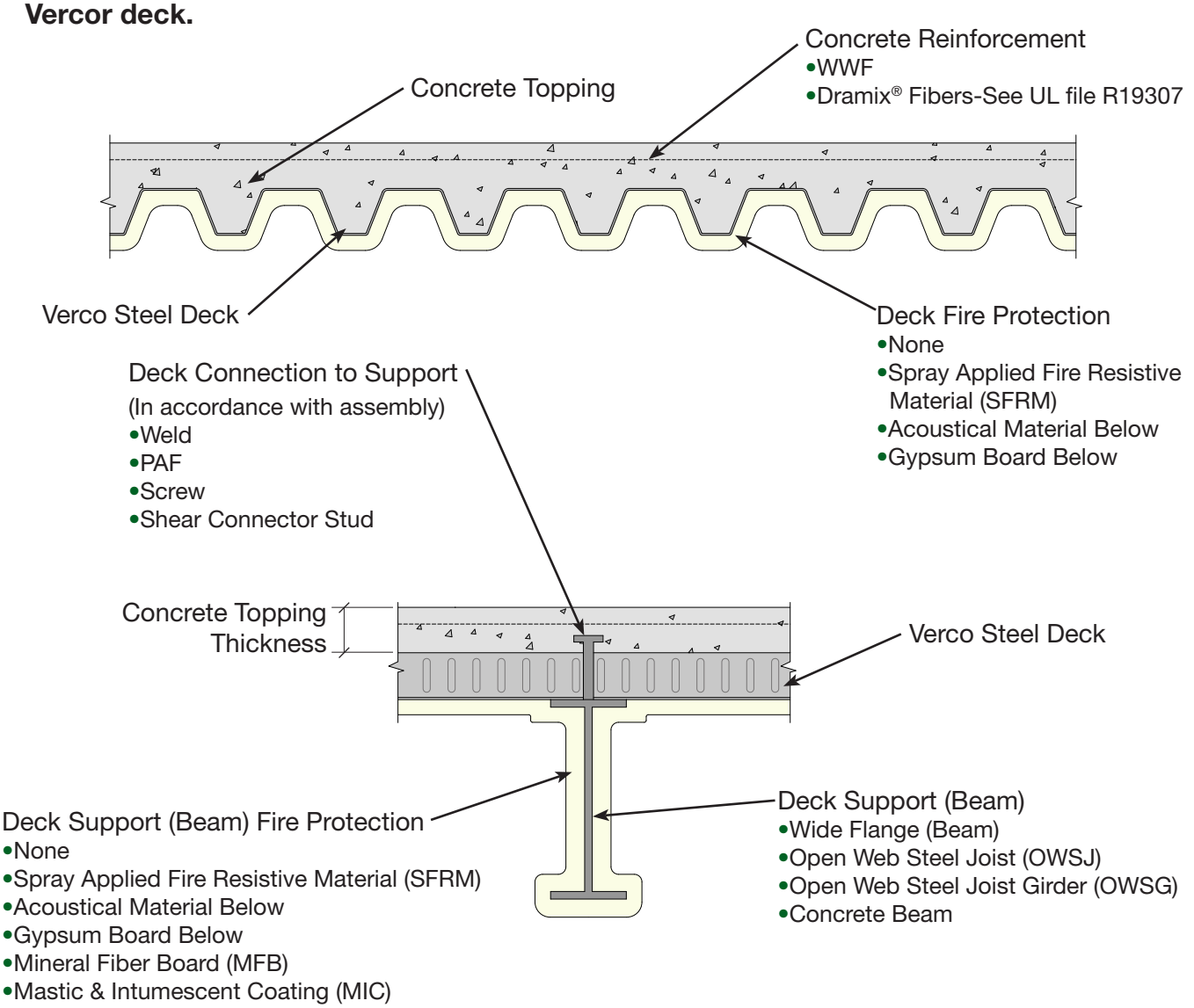
2. “B” = PLB-36 and HSB-36, PLB-36 and B-36 FormLok
   “N3” = PLN3-32 and HSN3-32, PLN3-32 and N3-32 FormLok
   “W2” = PLW2-36 and W2-36 FormLok
   “W3” = PLW3-36 and W3-36 FormLok
   “SV” & “DV” = Shallow Vercor or Deep Vercor, respectively
   “D” = 2.0D & 3.5D Dovetail Deck

3. UL recognized Verco gray primer paint on bare (un-galvanized) steel deck or galvanized steel deck may be used with spray-applied fire resistive material (SFRM) as noted in the protected assemblies listed above.

4. UL recognized Verco gray primer paint on bare (un-galvanized) steel deck or galvanized steel deck may be used in unprotected assemblies. Verco recommends the use of galvanized steel deck when using insulating fill due to potential corrosion issues.

USE UL RECOGNIZED FORMLOK® AND VERCOR® DECKS FOR YOUR FIRE RATED ASSEMBLIES WITH STRUCTURAL CONCRETE FILL

- **Verco FormLok composite and Vercor non-composite slabs may be used to meet hourly fire ratings. The type and thickness of concrete specified will generally determine whether fireproofing will be required on the underside of the FormLok or Vercor deck.**



REPRESENTATIVE FIRE RATED ASSEMBLY

The table on the following pages lists the UL fire rated assemblies that include Verco FormLok and Vercor decks profiles. This summary table is provided to assist in identification of assemblies to meet specific project requirements. Refer to the particular UL assembly for full details of construction including, specific information about concrete slab, framing, type of fire protection, deck types and span limitations.

VERCO® COMPOSITE & NON-COMPOSITE DECK
UL FIRE RATED ASSEMBLIES

UL Design Number	Restrained Assembly Rating[1] (hr.)	Concrete Topping		Deck Type[2, 4, 5, 6, 7]								
		Thickness (in.)	Type (pcf)	B	BR	N3	W2	W3	2.0D	3.5D	SV	DV
D216	**1, 1½, 2, 3**	2½-3⅛[8]	147-153 NW 107-113 LW	✓	✓	✓	✓	✓				
D219	**1, 1½, 2, 3**	2½-3⅛[8]	147-153 NW 107-113 LW	✓	✓	✓	✓	✓				
D303	**1**	3½	147-153 NW	✓	✓	✓	✓	✓				
	1½	4	147-153 NW	✓	✓	✓	✓	✓				
	2	4½	147-153 NW	✓	✓	✓	✓	✓				
	3	5¼	147-153 NW	✓	✓	✓	✓	✓				
	¾, 1	2½	107-113 LW	✓	✓	✓	✓	✓				
	1	2⅝	107-120 LW	✓	✓	✓	✓	✓				
	1½	3	107-113 LW	✓	✓	✓	✓	✓				
	2	3¼	107-113 LW	✓	✓	✓	✓	✓				
	2	3¼	107-116 LW			✓	✓	✓				
	2	3½	114-120 LW	✓	✓	✓	✓	✓				
	3	4³⁄₁₆	107-113 LW	✓	✓	✓	✓	✓				
	3	4⁷⁄₁₆	114-120 LW	✓	✓	✓	✓	✓				
D502	**1½, 2**	2½	147-153 NW	✓	✓	✓	✓	✓				
D506	**2**									✓		
D703	**1, 1½, 2, 3**	2½	142-148 NW 105 LW	✓	✓	✓	✓	✓				
D708 D768	**3**	2½	145-151 NW 109-115 LW	✓	✓	✓	✓	✓				
D716	**2**	2½	139 NW 109-115 LW	✓	✓	✓	✓	✓				
D722	**1, 1½, 2**	2½	142-148 NW 112 LW	✓	✓	✓	✓	✓				
D739	**1, 1½, 2, 3, 4**	2½	142-148 NW 102-120 LW 110 LW with OWSJ	✓	✓	✓	✓	✓				
D742 D771	**2** **3**	2½ 3½	147-153 NW	✓	✓	✓	✓	✓				
D743	**1, 1½, 2, 3**	2	147-153 NW 107-113 LW				✓	✓				
D750	**2**	2½	142-148 NW 105-111 LW	✓	✓	✓	✓	✓				
D754	**3, 4**	3¼	115-121 LW	✓	✓	✓	✓	✓				

Type of Protection[3]		Minimum Beam or Joist	Minimum Concrete Reinforcement[12]	Unrestrained Assembly Rating[1] (hr)	UL Design Number
Deck	Beam				
Acoustical Material below	Acoustical Material below	Beams: W8x15, OWSJ: 10J3, 12K4 or LH Series, OWSG: 20 in. deep at 13 plf	6x6-W1.4xW1.4, or Synthetic or Steel Fibers	**1, 1½, 2, 3**	D216
Acoustical Material below	Acoustical Material below	Beams: W8x15, OWSJ: 10J3, 12K4 or LH Series, OWSG: 20 in. deep at 13 plf	6x6-W1.4xW1.4	**1, 1½, 2, 3**	D219
Mineral Fiber Board	Mineral Fiber Board	Beams: W8x28	6x6-10/10 SWG	**1, 1½, 2**	D303
Gypsum Board below	Gypsum Board below	Beams: W8x28, OWSJ: 12K1 or LH Series, OWSG: 20 in. deep at 13 plf	6x6-W1.4xW1.4	**1½, 2**	D502
None	None		6x6-W1.4xW1.4	**1**	D506
SFRM	SFRM	Beams: W8x20	6x6-W2.9xW2.9	**1, 1½**	D703
SFRM	SFRM	Beams: W10x17	6x6-W2.9xW2.9	**1½, 3**	D708 D768
SFRM	SFRM	Beams: W8x28	6x6-10/10 SWG	**1½, 2**	D716
SFRM	SFRM	Beams: W6x12	6x6-W1.4xW1.4	**1, 1½, 2**	D722
SFRM	SFRM	Beams: W8x28, W6x12, OWSJ, Concrete Beams	Beams:6x6-W1.4xW1.4 Joists:6x6-W2.9xW2.9 or Synthetic Fibers	**1, 1½, 2, 3, 4**	D739
SFRM	SFRM	Beams: W8x24	6x6-W1.4xW1.4	**½**	D742 D771
SFRM	SFRM	Beams: W8x20, W8x28, W8x15, Concrete Beams	6x6-W1.4xW1.4	**1, 1½, 2, 3**	D743
SFRM	SFRM	Beams: W8x21	6x6-W1.4xW1.4	**1½, 2**	D750
SFRM	SFRM	Beams: W8x28	6x6-W1.4xW1.4	**1½, 2**	D754

VERCO® COMPOSITE & NON-COMPOSITE DECK
UL FIRE RATED ASSEMBLIES

UL Design Number	Restrained Assembly Rating[1] (hr.)	Concrete Topping		Deck Type[2, 4, 5, 6, 7]								
		Thickness (in.)	Type (pcf)	B	BR	N3	W2	W3	2.0D	3.5D	SV	DV
D755	2, 3	2½	147-153 NW 109-115 LW	✓	✓	✓	✓	✓				
D759	1, 1½, 2, 3	2½	147-153 NW 109-115 LW	✓	✓	✓	✓	✓				
D760	2, 3, 4	2½	144-150 NW 107-113 LW	✓	✓	✓	✓	✓				
D764	2	2½	147-153 NW 117 LW	✓	✓	✓	✓	✓				
D767 D796	1, 1½, 2, 3, 4	2½	142-148 NW 102-120 LW 110 LW with OWSJ	✓	✓	✓	✓	✓				
D775	2	2½	142-148 NW 105-111 LW	✓	✓	✓	✓	✓				
D777	3, 4	3¼	115-121 LW	✓	✓	✓	✓	✓				
D779	1, 1½, 2, 3, 4	2½	142-148 NW 102-120 LW	✓	✓	✓	✓	✓				
D780	1, 1½, 2, 3	2½	147-153 NW 107-113 LW	✓	✓	✓	✓	✓				
D782	1, 1½, 2, 3, 4	4½ 3¼	142-148 NW 115-121 LW	✓	✓	✓	✓	✓				
D785	2, 3, 4	2½	142-148 NW 102-120 LW	✓	✓		✓	✓				
D786	2	2½	142-148 NW 102-120 LW	✓	✓		✓	✓				
D788	1, 1½, 2, 3, 4	2½	NW, LW	✓	✓	✓	✓	✓				
D794	2	2½	147-153 NW 117 LW	✓	✓	✓	✓	✓				
D795	1, 1½, 2, 3	2½	147-153 NW 109-115 LW	✓	✓	✓	✓	✓				
D798	1, 1½, 2, 3, 4	2½	142-148 NW 107-113 LW	✓	✓	✓	✓	✓				
D799	1, 1½, 2, 3	2½	150-153 NW 112-115 LW	✓	✓	✓	✓	✓				
D816	3	2½	147-153 NW 107-113 LW	✓	✓	✓	✓	✓				
D825	2	2½	147-153 NW 105-111 LW	✓	✓	✓	✓	✓				

Type of Protection[3]		Minimum Beam or Joist	Minimum Concrete Reinforcement[12]	Unrestrained Assembly Rating[1] (hr)	UL Design Number
Deck	Beam				
SFRM	SFRM	Beams: W8x24, W8x28, OWSJ: 10H3, 12J6	6x6-W1.4xW1.4 only when electrical inserts are used	**1, 1½, 2, 3**	D755
SFRM	SFRM	Beams: W8x28, OWSJ or OWSG	Beams:6x6-W1.4xW1.4 Joists: 6x6-W2.9xW2.9	**1, 1½, 2, 3**	D759
SFRM	SFRM	Beams: W8x28, OWSJ or OWSG	6x6-W1.4xW1.4	**1, 1½, 2, 3, 4**	D760
SFRM	SFRM	Beams: W8x28, OWSJ or OWSG	6x6-6/6 SWG	**2**	D764
SFRM	SFRM	Beams: W8x28, W6x12, OWSJ, Concrete Beams	Beams:6x6-W1.4xW1.4 Joists:6x6-W2.9xW2.9	**1, 1½, 2, 3, 4**	D767 D796
SFRM	SFRM	Beams: W8x21	6x6-W1.4xW1.4	**1½, 2**	D775
SFRM	SFRM	Beams: W8x28	6x6-W1.4xW1.4	**1½, 2**	D777
SFRM	SFRM	Beams: W8x28, OWSJ: 8K1	6x6-W1.4xW1.4 or Synthetic Fibers	**1, 1½, 2, 3, 4**	D779
SFRM	SFRM	Beams: W8x28, OWSJ: 10K1, 12K3, 16K2	6x6-W2.0xW2.0	**1, 1½, 2, 3**	D780
SFRM	SFRM	Beams: W8x28, OWSJ: Minimum 10” depth.	6x6-W1.4xW1.4	**1, 1½, 2, 3, 4**	D782
SFRM	MIC	Beams: W6x16	6x6-W1.4xW1.4	**1, 1½, 2, 3**	D785
SFRM	MIC	Beams: W12x106	6x6-W1.4xW1.4	**1, 1½**	D786
SFRM	SFRM	Beams: W8x28, OWSJ: 10K1	6x6-8/8 SWG	**1, 1½, 2, 3, 4**	D788
SFRM	SFRM	Beams: W8x28, OWSJ or OWSG	6x6-6/6 SWG	**2**	D794
SFRM	SFRM	Beams: W8x28, OWSJ	Beams:6x6-W1.4xW1.4 Joists:6x6-W2.9xW2.9	**1, 1½, 2, 3**	D795
SFRM	SFRM	Beams: W8x28, OWSJ: 10K1	Beams:6x6-10/10 SWG Joists:6x6-W1.4xW1.4 or Synthetic Fibers	**1, 1½, 2, 3, 4**	D798
SFRM	SFRM	Beams: W8x28, OWSJ: 10K1 or 10 in. deep at 4.8 plf	Beams:6x6-W1.4xW1.4 Joists:6x6-W2.9xW2.9	**1, 1½, 2, 3**	D799
SFRM	SFRM	Beams: W10x17, W10x25	None	**1½, 2**	D816
SFRM	SFRM	Beams: W8x17	6x6-W1.4xW1.4	**1, 1½, 2**	D825

UL Design Number	Restrained Assembly Rating[1] (hr.)	Concrete Topping		Deck Type[2, 4, 5, 6, 7]								
		Thickness (in.)	Type (pcf)	B	BR	N3	W2	W3	2.0D	3.5D	SV	DV
D826	2	3¼	108-114 LW	✓	✓	✓	✓	✓				
D831	2, 3	2½	148-154 NW 117-123 LW	✓	✓	✓	✓	✓				
D832	1, 1½, 2, 3	2½	147-153 NW 109-115 LW	✓	✓	✓	✓	✓				
D833 D884	2, 3	2½	147-153 NW 107-115 LW	✓	✓	✓	✓	✓				
D840 D888	2	3¼	107-113 LW	✓	✓	✓	✓	✓				
		3½	107-120 LW	✓	✓	✓	✓	✓				
		3¼	107-116 LW			✓	✓	✓				
D858 D891	1, 1½, 2, 3, 4	2½	147-153 NW 108-115 LW	✓	✓	✓	✓	✓				
D859 D875	1, 1½, 2, 3	2	142-148 NW 108-115 LW	✓	✓	✓	✓	✓				
D860	2, 3, 4	3¼	115-121 LW	✓	✓	✓	✓	✓				
D867 D896	3		144-150 NW 107-113 LW	✓	✓	✓	✓	✓				
D871	1, 1½, 2, 3	2½	147-153 NW 108-115 LW				✓	✓				
D877	2	2½	147-153 NW 105-111 LW	✓	✓	✓	✓	✓				
D878	2	3¼	108-114 LW	✓	✓	✓	✓	✓				
D883	1, 1½, 2, 3	2½	147-153 NW 109-115 LW	✓	✓	✓	✓	✓				
D898	1, 1½, 2, 3	2½	147-153 NW 108-115 LW	✓	✓	✓	✓	✓				
D902	1	3½	147-153 NW	✓	✓	✓	✓	✓				
	1½	4	147-153 NW	✓	✓	✓	✓	✓				
	2	4½	147-153 NW	✓	✓	✓	✓	✓				
	3	5¼	147-153 NW	✓	✓	✓	✓	✓				
	1	2½	107-113 LW	✓	✓	✓	✓	✓				
	1	2⅝	107-120 LW	✓	✓	✓	✓	✓				
	1½	3	107-113 LW	✓	✓	✓	✓	✓				
	2	3¼	107-113 LW	✓	✓	✓	✓	✓				

D902 Continued on Next Page

Type of Protection[3]		Minimum Beam or Joist	Minimum Concrete Reinforcement[12]	Unrestrained Assembly Rating[1] (hr)	UL Design Number
Deck	Beam				
SFRM	SFRM	Beams: W8x20	6x6-W1.4xW1.4	**1, 1½, 2**	D826
SFRM	SFRM	Beams: W6x12, W8x28	6x6-W1.4xW1.4	**1, 1½, 2**	D831
SFRM	SFRM	Beams: W8x28, OWSJ	6x6-W1.4xW1.4 only when electrical inserts used	**1, 1½, 2, 3**	D832
SFRM	SFRM	Beams: W10x25	WWF Optional	**2, 3**	D833 D884
None	SFRM	Beams: W8x28	6x6-10/10 SWG	**1½**	D840 D888
SFRM	SFRM	Beams: W8x28, OWSJ, Concrete Beams Beams: W10x25, Concrete Beams	6x6-W1.4xW1.4	**1, 1½, 2, 3, 4**	D858 D891
SFRM	SFRM	Beams: W8x20	6x6-W1.4xW1.4	**1, 1½, 2, 3**	D859 D875
SFRM	SFRM	Beams: W8x20, W8x28	6x6-W1.4xW1.4	**1, 1½, 2**	D860
SFRM	SFRM	Beams: W8x18	6x6-6/6 SWG	**1½, 2**	D867 D896
SFRM	SFRM	Beams: W8x21, Concrete Beams	6x6-W1.4xW1.4 or Synthetic Fibers	**1, 1½, 2, 3**	D871
SFRM	SFRM	Beams: W8x17	6x6-W1.4xW1.4	**1, 1½, 2**	D877
SFRM	SFRM	Beams: W8x20	6x6-W1.4xW1.4	**1, 1½, 2**	D878
SFRM	SFRM	Beams: W8x24, W8x28	6x6-W1.4xW1.4 only when electrical inserts used	**1, 1½, 2, 3**	D883
SFRM	SFRM	Beams: W8x21, Concrete Beams	6x6-W1.4xW1.4 or Synthetic Fibers	**1, 1½, 2, 3**	D898
None	SFRM	Beams: W8x28, W8x24, W6x12, OWSJ: 8K1, 12K5	6x6-W1.4xW1.4 or Negative Reinforcement with Synthetic Fibers	**1, 1½, 2, 3**	D902

D902 Continued on Next Page

UL Design Number	Restrained Assembly Rating[1] (hr.)	Concrete Topping Thickness (in.)	Concrete Topping Type (pcf)	Deck Type[2, 4, 5, 6, 7] B	BR	N3	W2	W3	2.0D	3.5D	SV	DV
D902 Continued from Previous Page												
D902	2	3¼	107-116 LW			✓	✓	✓				
	2	3½	114-120 LW	✓	✓	✓	✓	✓				
	3	4³⁄₁₆	107-113 LW	✓	✓	✓	✓	✓				
	3	4⁷⁄₁₆	114-120 LW	✓	✓	✓	✓	✓				
D904 D961	1	2	147 NW						✓			
	1½	2¾	147 NW						✓			
	2	3¼	147 NW						✓			
	3	4¾	147 NW						✓			
	2	3	130 SLW						✓			
	3	4	130 SLW						✓			
	1	2	112 LW						✓			
	2	2½	112 LW						✓			
	3	3¼	112 LW						✓			
D907	2	3¼	110 LW	✓	✓	✓	✓	✓				
D913	2	3¼	102 LW	✓	✓		✓	✓				
D914	¾, 1	2½	110 LW	✓	✓	✓	✓	✓				
D916 D922 D925 D927 D929 D931 D949 D957 D958	1	3½	147-153 NW	✓	✓	✓	✓	✓				
	1½	4	147-153 NW	✓	✓	✓	✓	✓				
	2	4½	147-153 NW	✓	✓	✓	✓	✓				
	3	5¼	147-153 NW	✓	✓	✓	✓	✓				
	¾ or 1	2½	107-113 LW	✓	✓	✓	✓	✓				
	1	2⅝	107-120 LW	✓	✓	✓	✓	✓				
	1½	3	107-113 LW	✓	✓	✓	✓	✓				
	2	3¼	107-113 LW	✓	✓	✓	✓	✓				
	2	3¼	107-116 LW			✓	✓	✓				
	2	3½	114-120 LW	✓	✓	✓	✓	✓				
	3	4³⁄₁₆	107-113 LW	✓	✓	✓	✓	✓				
	3	4⁷⁄₁₆	114-120 LW	✓	✓	✓	✓	✓				
D917 D928	1	2	147-153 NW						✓			
	1½	2¾	147-153 NW						✓			
	2	3¼	147-153 NW						✓			
	3	4¾	147-153 NW						✓			
	2	3	130 SLW						✓			

D917, D928 Continued on Next Page

Type of Protection[3]		Minimum Beam or Joist	Minimum Concrete Reinforcement[12]	Unrestrained Assembly Rating[1] (hr)	UL Design Number
Deck	Beam				
				D902 Continued from Previous Page	
None	SFRM	Beams: W8x28, W8x24, W6x12, Joist: 8K1, 12K5	6x6-W1.4xW1.4 or Negative Reinforcement with Synthetic Fibers	**1, 1½, 2, 3**	D902
None	SFRM	Beams: W8x28, W10x29	6x6-6/6 SWG	**¾, 1, 1½**	D904 D961
None	SFRM	Beams: W8x17, W8x28	6x6-W1.4xW1.4	**1, 2**	D907
None	SFRM	Beams: W8x17	6x6-W1.4xW1.4	**1**	D913
None	SFRM	Beams: W8x28	6x6-W1.4xW1.4	**0**	D914
None	SFRM	Beams: W8x28, OWSJ, OWSG	6x6-W1.4xW1.4	**1, 1½, 2, 3**	D916
None	SFRM	Beams: W8x28, OWSJ, OWSG	6x6-10/10 SWG	**3**	D922
None	SFRM	Beams: W8x28, W12x16, OWSJ: 8K1	6x6-10/10 SWG, Optional: Negative Reinforcing with Synthetic Fibers	**1, 1½, 2, 3**	D925
None	SFRM	Beams: W8x28, OWSJ, OWSG	6x6-10/10 SWG	**1, 1½, 2, 3**	D927
None	MFB	Beams: W8x28	6x6-10/10 SWG	**1, 1½, 2**	D929
None	MIC	Beams: W8x28	6x6-10/10 SWG	**1**	D931
None	SFRM	Beams: W8x28, OWSJ: 10K1	6x6-10/10 SWG	**1, 1½, 2, 3**	D949
None	SFRM	Beams: W12x14, W8x28, W8x24, W6x12, OWSJ	6x6-10/10 SWG	**1, 1½, 2, 3**	D957
None	SFRM	Beams: W8x28, OWSJ, OWSG	6x6-10/10 SWG	**3**	D958
None	SFRM	Beams: W10x29	6x6-6/6 SWG	**¾**	D917
				¾, 1	D928
				D917, D928 Continued on Next Page	

UL Design Number	Restrained Assembly Rating[1] (hr.)	Concrete Topping Thickness (in.)	Concrete Topping Type (pcf)	Deck Type[2, 4, 5, 6, 7] B	BR	N3	W2	W3	2.0D	3.5D	SV	DV
D917, D928 Continued from Previous Page												
D917 D928	3	4	130 SLW						✓			
	1	2	107-113 LW						✓			
	2	2½	107-113 LW						✓			
	3	3¼	107-113 LW						✓			
D919 D968	1	3½	147-153 NW	✓	✓	✓	✓	✓				
	1½	4	147-153 NW	✓	✓	✓	✓	✓				
	2	4½	147-153 NW	✓	✓	✓	✓	✓				
	3	5¼	147-153 NW	✓	✓	✓	✓	✓				
	1	2½	107-113 LW	✓	✓	✓	✓	✓				
	1½	3	107-113 LW	✓	✓	✓	✓	✓				
	2	3¼	107-116 LW	✓	✓	✓	✓	✓				
	2	3½	114-120 LW	✓	✓	✓	✓	✓				
	3	4³⁄₁₆	107-113 LW	✓	✓	✓	✓	✓				
	3	4⁷⁄₁₆	114-120 LW	✓	✓	✓	✓	✓				
D920	2	3¼	110-120 LW				✓	✓				
D923	1	3½	147-153 NW	✓	✓	✓	✓	✓				
	1½	4	147-153 NW	✓	✓	✓	✓	✓				
	2	4½	147-153 NW	✓	✓	✓	✓	✓				
	3	5¼	147-153 NW	✓	✓	✓	✓	✓				
	¾ or 1	2½	107-113 LW	✓	✓	✓	✓	✓				
	1	2⅝	107-120 LW	✓	✓	✓	✓	✓				
	1½	3	107-113 LW	✓	✓	✓	✓	✓				
	2	3¼	107-113 LW	✓	✓	✓	✓	✓				
	2	3¼	107-116 LW			✓	✓	✓				
	2	3½	107-120 LW	✓	✓	✓	✓	✓				
	3	4³⁄₁₆	107-113 LW	✓	✓	✓	✓	✓				
	3	4⁷⁄₁₆	107-120 LW	✓	✓	✓	✓	✓				
D924 D969	2	4⅛	142-148 NW[9]	✓	✓		✓	✓				
	3	5	142-148 NW[9]	✓	✓		✓	✓				
	2	4⅜	142-148 NW[10]	✓	✓		✓	✓				
	3	5⅜	142-148 NW[10]	✓	✓		✓	✓				
	2	3⅛	105-111 LW	✓	✓		✓	✓				
	3	4	105-111 LW	✓	✓		✓	✓				

Type of Protection[3]		Minimum Beam or Joist	Minimum Concrete Reinforcement[12]	Unrestrained Assembly Rating[1] (hr)	UL Design Number
Deck	Beam				
				D917, D928 Continued from Previous Page	
None	SFRM	Beams: W10x29	6x6-6/6 SWG	¾	D917
				¾, 1	D928
None	SFRM	Beams: W8x28	6x6-W1.4xW1.4	1½	D919 D968
None	SFRM	Beams: W8x28	6x6-W1.4xW1.4	1½	D920
None	SFRM	Beams: W8x28	6x6-10/10 SWG	1½	D923
None	SFRM	Beams: W8x28	Negative Reinforcing and Synthetic Fibers	1½	D924
				1½	D969

VERCO® COMPOSITE & NON-COMPOSITE DECK
UL FIRE RATED ASSEMBLIES

UL Design Number	Restrained Assembly Rating[1] (hr.)	Concrete Topping		Deck Type[2, 4, 5, 6, 7]								
		Thickness (in.)	Type (pcf)	B	BR	N3	W2	W3	2.0D	3.5D	SV	DV
D947 D964 D984	1½	2	147-153 NW							✓		
	2	2¼	147-153 NW							✓		
	3	3¾	147-153 NW							✓		
	1½	2	107-113 LW							✓		
	2	2	107-113 LW							✓		
	3	2¼	107-113 LW							✓		
D966	2	3¼	102 LW	✓	✓		✓	✓				
D967	¾, 1	2½	110 LW	✓	✓	✓	✓	✓				
D978 D985	1	3½	147-153 NW	✓	✓	+	✓	✓				
	1½	4	147-153 NW	✓	✓	+	✓	✓				
	2	4½	147-153 NW	✓	✓	+	✓	✓				
	3	5¼	147-153 NW	✓	✓	+	✓	✓				
	¾ or 1	2½	107-113 LW	✓	✓	+	✓	✓				
	1	2⅝	107-120 LW	✓	✓	+	✓	✓				
	1½	3	107-113 LW	✓	✓	+	✓	✓				
	2	3¼	107-113 LW	✓	✓	+	✓	✓				
	2	3¼	107-116 LW			+	✓	✓				
	2	3½	114-120 LW	✓	✓	+	✓	✓				
	3	4³⁄₁₆	107-113 LW	✓	✓	+	✓	✓				
	3	4⁷⁄₁₆	114-120 LW	✓	✓	+	✓	✓				
D981	2	4½	147-153 NW	✓	✓		✓	✓				
	2	3¼	107-113 LW	✓	✓		✓	✓				
	2	3¼	107-116 LW				✓	✓				
	2	3½	114-120 LW	✓	✓		✓	✓				
D996	2	3¾	142-148 NW				✓	✓				

+ N24 and N3 Decks are not permitted in UL Design D978

Type of Protection[3]		Minimum Beam or Joist	Minimum Concrete Reinforcement[12]	Unrestrained Assembly Rating[1] (hr)	UL Design Number
Deck	Beam				
None	SFRM	Beams: W8x28, W10x29	6x6-W1.4xW1.4	**¾, 1½**	D947 D964 D984
None	SFRM	Beams: W8x17	6x6-W1.4xW1.4	**1**	D966
None	SFRM	Beams: W8x28	6x6-W1.4xW1.4	**0**	D967
None	MIC	Beams: W6x16	6x6-W1.4xW1.4	**1, 1½, 2, 3**	D978
None	SFRM	Beams: W8x28, OWSJ: 10K1	6x6-10/10 SWG Optional Negative Reinforcing and Synthetic Fibers	**1, 1½, 2, 3**	D985
None	MIC	Beams: W6x12	6x6-W1.4xW1.4		D981
None	MIC or SFRM	Beams: W8x28	Fiber Reinforcement	**2**	D996

VERCO® COMPOSITE & NON-COMPOSITE DECK
UL FIRE RATED ASSEMBLIES

UL Design Number	Restrained Assembly Rating[1] (hr.)	Concrete Topping		Deck Type[2, 4, 5, 6, 7]								
		Thickness (in.)	Type (pcf)	B	BR	N3	W2	W3	2.0D	3.5D	SV	DV
E701	**1, 1½, 2, 3**	2½	147-153 NW 109-115 LW	✓	✓	✓	✓	✓				
E702	**1, 1½, 2, 3, 4**	2½	147-153 NW 108-115 LW	✓	✓	✓	✓	✓				
E703	**2, 3**	2½	142-148 NW 102-120 LW	✓	✓		✓	✓				
E704	**2, 3, 4**	2½	142-148 NW 102-120 LW	✓	✓		✓	✓				
G213	**1½, 2, 3**	2½	152 NW	✓	✓		✓	✓			✓	✓
G222	**2**	2½	144-150 NW	✓	✓		✓	✓			✓	✓
G227	**2**	2½	147-153 NW	✓	✓		✓	✓			✓	✓
G229	**1½, 2**	2½	147-153 NW	✓	✓		✓	✓			✓	✓
	3	3¼	147-153 NW	✓	✓		✓	✓			✓	✓
G236	**1½, 2**	2½	147-153 NW	✓	✓		✓	✓			✓	✓
G243	**1½, 2**	2½	144-150 NW	✓	✓		✓	✓			✓	✓
G547	**2**	2½	149-155 NW	✓	✓		✓	✓			✓	✓
	3	3										
G561	**1, 1½, 2, 3**	2½	147-153 NW 108-120 LW	✓	✓		✓	✓				✓
G710[11]	**1, 1½, 2, 3**	2¾	150 NW 117 LW	✓	✓						✓	✓
N789	**1, 1½, 2, 3, 4**	2½	142-148 NW 104-120 LW	✓	✓		✓	✓			✓	✓

Type of Protection[3]		Minimum Beam or Joist	Minimum Concrete Reinforcement[12]	Unrestrained Assembly Rating[1] (hr)	UL Design Number
Deck	Beam				
SFRM	SFRM	Beams: W8x28, Concrete Beams	6x6-W1.4xW1.4 only when electrical inserts used	**1, 1½, 2, 3**	E701
SFRM	SFRM	Beams: W8x28, Concrete Beams	6x6-W1.4xW1.4	**1, 1½, 2, 3, 4**	E702
SFRM	MIC	Beams: W6x16	6x6-W1.4xW1.4	**1, 1½, 2**	E703
SFRM	MIC	Beams: W6x16	6x6-W1.4xW1.4	**1, 1½, 2, 3**	E704
Acoustical Material below	Acoustical Material below	Beams: W6x9, W8x24, OWSJ or OWSG: 10 in. deep at 4.9 plf	6x6-W1.4xW1.4	**1½, 2, 3**	G213
Gypsum Board below	Gypsum Board below	Beams: W6x9, W8x24, OWSJ or OWSG: 10 in. deep at 4.9 plf	6x6-W1.4xW1.4	**2**	G222
Acoustical Material below	Acoustical Material below	Beams: W6x9, OWSJ or OWSG: 10 in. deep at 4.9 plf	6x6-W1.4xW1.4	**2**	G227
Acoustical Material below	Acoustical Material below	Beams: W8x24, OWSJ or OWSG: 8 in. deep	6x6-W1.4xW1.4	**1½, 2, 3**	G229
Acoustical Material below	Acoustical Material below	Beams: W6x9, OWSJ or OWSG: 10 in. deep at 4.9 plf	6x6-W1.4xW1.4	**1½, 2**	G236
Acoustical Material below	Acoustical Material below	Beams: W6x9, OWSJ or OWSG: 10 in. deep at 4.9 plf	6x6-W1.4xW1.4	**1½, 2**	G243
Gypsum Board below	Gypsum Board below	Beams: W10x21, OWSJ or OWSG: 8K1, 10K1	6x6-W1.4xW1.4	**2, 3**	G547
Gypsum Board below	Gypsum Board below	Beams: W6x9, W8x24, OWSJ or OWSG: 10 in. deep at 4.9 plf	6x6-W1.4xW1.4 or Synthetic or Steel Fibers	**1, 1½, 2, 3**	G561
SFRM	SFRM	OWSJ or OWSG: 8 in. deep at 4.9 plf	6x6-W2.1xW2.1	**1, 1½, 2**	G710[11]
None	SFRM	OWSJ or OWSG: 8K1	6x6-W1.4xW1.4	**1, 1½, 2, 3, 4**	N789

Notes:

1. Refer to the UL "Fire Resistance Directory" for complete assembly requirements.

2. "B" = PLB-36 and B-36 FormLok
   "BR" = BR-36 FormLok
   "N3" = PLN3-32 and N3-32 FormLok
   "W2" = PLW2-36 and W2-36 FormLok
   "W3" = PLW3-36 and W3-36 FormLok
   "SV" & "DV" = Shallow Vercor or Deep Vercor, respectively
   "2.0D" = 2.0DS-30 FL, 2.0DF-30 FL
   "3.5D" = 3.5DS-24 FL, 3.5DF-24 FL

3. "SFRM" = Spray-Applied Fire Resistive Materials
   "MFB" = Mineral Fiber Board
   "MIC" = Mastic and Intumescent Coating

4. Verco steel decks in the assemblies listed above may be galvanized or painted, excluding assemblies D904, D917, D928, D947, D961, D964, and D984 which shall be galvanized only. Painted deck is bare (un-galvanized) steel deck with UL recognized Verco gray primer paint on the bottom side only.

5. Galvanized decks with UL recognized Verco gray primer paint on the bottom side only are approved for use in limited fire-rated systems. Refer to specific UL assemblies for complete information.

6. Cellular versions of the Verco steel decks in the assemblies listed above may be used, excluding assemblies D742, D750, D754, D760, D771, D775, D777, D779, D780, D782, D798, D904, D917, D924, D928, D947, D961, D964, D969, D973, D981, D984, D996, E707 and G710 which shall be non-cellular decks.

7. Cellular acoustical versions of the Verco steel decks may be used in all listed D9xx assemblies except D904, D917, D924, D928, D947, D961, D964, D969, D973, D981, D984, D996, and all listed Gxx assemblies except G710.

8. Topping thickness varies based on selected acoustical material.

9. Carbonate Aggregate Normal Weight Concrete

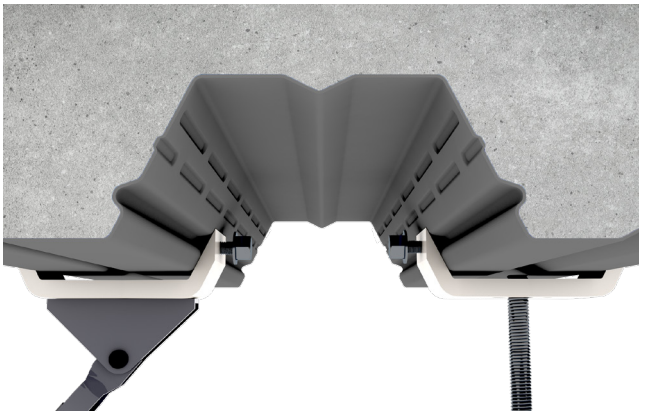
10. Siliceous Aggregate Normal Weight Concrete

11. For G710, the 1 hr rating, concrete topping thickness may be reduced to 2½ in. when composite or non-composite joist are used. For 1½ or 2 hr ratings, concrete topping thickness may be reduced to 2½ in. when non-composite joist are used.

12. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

W3-36/PLW3-36 FORMLOK® DECK-SLAB
BADGER NO-DRILL™ HANGING AND BRACING SOLUTIONS

Hang and Brace Loads From W3-36/PLW3-36 FormLok Composite Deck-Slabs



BADGER CLAW HANGER

- **IAPMO UES ER-2018**

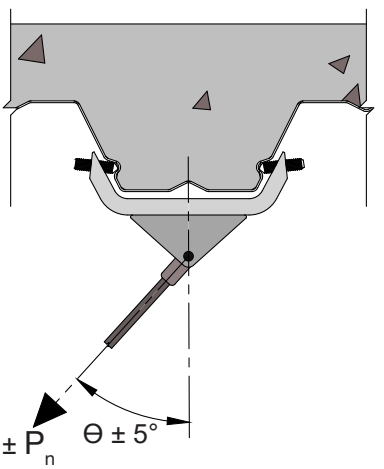
HANGING OR BRACING LOAD

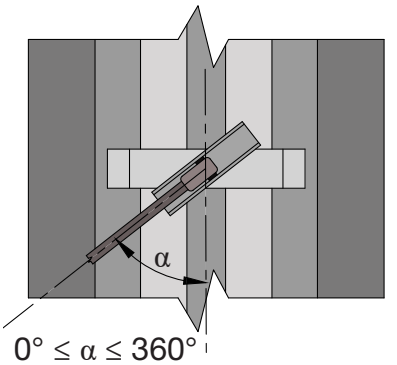
f'_c = 3000 psi (min.) NWC or LWC

Part Number	Threaded Rod Size (in.)	Load Angle (θ)	Allowable Strength, P_n/Ω (lbs) Spacing (in.) 2	4	6	8	≥ 10	Design Strength, ϕP_n (lbs) Spacing (in.) 2	4	6	8	≥ 10
NDH4S-W3	3/8, 1/2, 5/8	0	814	877	941	1004	1052	1254	1351	1449	1546	1620
		40	814	877	940	1003	1052	1254	1351	1448	1545	1620
		45	790	851	912	973	1020	1216	1311	1405	1499	1571
		50	763	822	882	941	986	1175	1267	1358	1449	1519
		55	735	792	849	906	949	1131	1219	1307	1395	1462
		60	704	759	814	868	910	1085	1169	1253	1337	1402

MAXIMUM SPRINKLER PIPE DIAMETER

Part Number	Threaded Rod Size (in.)	Hanging NPS Diameter (in.)	Bracing NPS Diameter (in.)
NDH4S-W3	3/8	4	by analysis
	1/2	6	
	5/8	6	



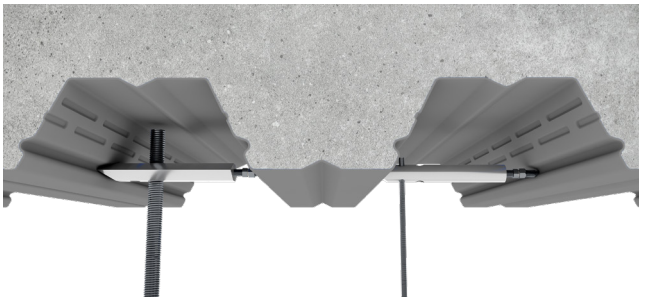


Notes:

1. The strength of the FormLok Composite steel deck-slab, Badger No-Drill Hanger, or threaded rod, bolt, and other connecting hardware shall be equal or greater than the governing load combination as stipulated in the IBC or ASCE/SEI 7 including the fire sprinkler system loading.
2. The effect of connection spacing interaction, between the Badger NDH4S-W3 connections and any other connections to the composite steel-deck slab shall be considered.
3. Sprinkler pipe sizes at maximum hanger spacing conform to NFPA 13 based on the individual NDH4S-W3 connection strength without the effects of spacing interaction.
4. Badger No-Drill Hanger IAPMO recognized strengths published in this document are applicable to Verco FormLok deck manufactured after 6/21/2022.
5. Badger hangers shall be installed and inspected in accordance with manufacturer's instructions.

W3-36/PLW3-36 FORMLOK® DECK-SLAB
BADGER NO-DRILL™ HANGING SOLUTIONS

Hang Loads From W3-36/PLW3-36 FormLok Composite Deck-Slabs



BADGER CROSSBAR HANGERS

- **IAPMO UES ER-2018**

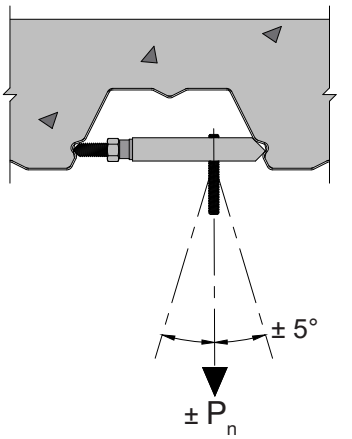
HANGING LOAD

f'_c = 3000 psi (min.) NWC or LWC

Part Number	Threaded Rod Size (in.)	Spacing (in.) 2	4	6	8	10	12	14	16	18	≥ 20
		Allowable Strength, P_n/Ω (lbs)									
NDH3812 or MDH3812	3/8 1/2	410	423	435	448	460	472	478	478	478	478
NDH1258 or MDH1258	1/2 5/8	476	497	518	539	560	581	602	623	644	659
		Design Strength, $øP_n$ (lbs)									
NDH3812 or MDH3812	3/8 1/2	652	672	692	712	731	751	760	760	760	760
NDH1258 or MDH1258	1/2 5/8	799	835	870	906	941	976	1012	1047	1083	1107

MAXIMUM SPRINKLER PIPE DIAMETER

Part Number	Threaded Rod Size (in.)	Hanging NPS Diameter (in.)
NDH3812 or MDH3812	3/8	4
	1/2	3½
NDH1258 or MDH1258	1/2	4
	5/8	5

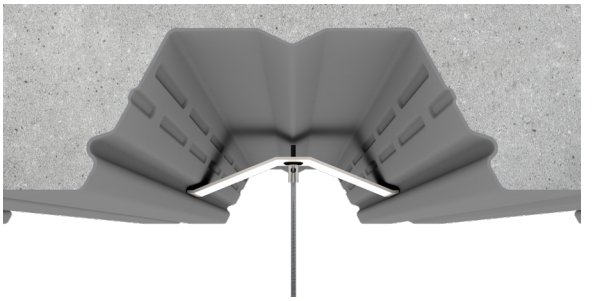


Notes:

1. The strength of the FormLok Composite steel deck-slab, Badger No-Drill Hanger, or threaded rod, bolt, and other connecting hardware shall be equal or greater than the governing load combination as stipulated in the IBC or ASCE/SEI 7 including the fire sprinkler system loading.
2. The effect of connection spacing interaction, between the Badger NDH3812 or MDH3812, or NDH1258 or MDH1258 connections and any other connections to the composite steel-deck slab shall be considered.
3. Sprinkler pipe sizes at maximum hanger spacing conform to NFPA 13 based on the individual NDH3812 or MDH3812, or NDH1258 or MDH1258 connection strength without the effects of spacing interaction.
4. Badger No-Drill Hanger IAPMO recognized strengths published in this document are applicable to Verco FormLok deck manufactured after 6/21/2022.
5. Badger hangers shall be installed and inspected in accordance with manufacturer's instructions.

W3-36/PLW3-36 FORMLOK® DECK-SLAB
BADGER NO-DRILL™ HANGING SOLUTIONS

Hang Ceilings, Luminaries, and Light MEP From W3-36/PLW3-36 FormLok Composite Deck-Slabs



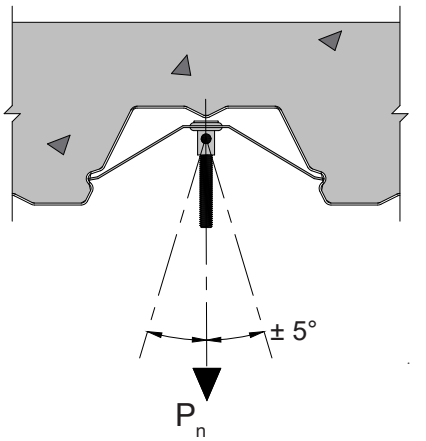
BADGER SNAP-IN HANGER

- **IAPMO UES ER-2018**

HANGING LOAD

f'_c = 3000 psi (min.) NWC or LWC

Part Number	Threaded Rod Size (in.)	Allowable Strength P_n / Ω (lbs)	Design Strength ϕP_n (lbs)
NDH38FV-W3	3/8	182	305



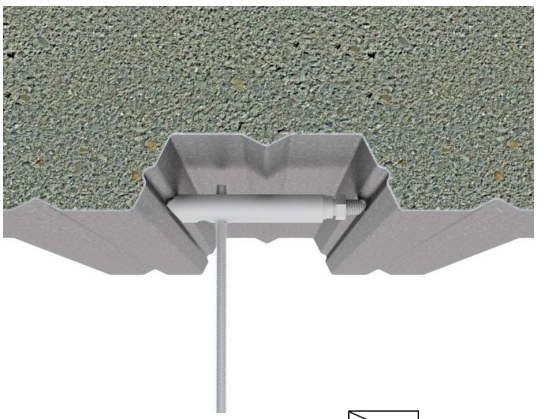
MAXIMUM SPRINKLER PIPE DIAMETER

Part Number	Threaded Rod Size (in.)	Hanging NPS Diameter (in.)
NDH38FV-W3	3/8	1 1/2

Notes:

1. The strength of the FormLok Composite steel deck-slab, Badger No-Drill Hanger, or threaded rod, bolt, and other connecting hardware shall be equal or greater than the governing load combination as stipulated in the IBC or ASCE/SEI 7 including the fire sprinkler system loading.
2. The effect of connection spacing interaction, between the Badger NDH38FV-W3 connections and any other connections to the composite steel-deck slab shall be considered.
3. Sprinkler pipe sizes at maximum hanger spacing conform to NFPA 13 based on the individual NDH38FV-W3 connection strength without the effects of spacing interaction.
4. Badger No-Drill Hanger IAPMO recognized strengths published in this document are applicable to Verco FormLok deck manufactured after 6/21/2022.
5. Badger hangers shall be installed and inspected in accordance with manufacturer's instructions.

Hang Loads From W2-36/PLW2-36 FormLok Composite Deck-Slabs



BADGER CROSSBAR HANGER

- **IAPMO UES ER-2018**

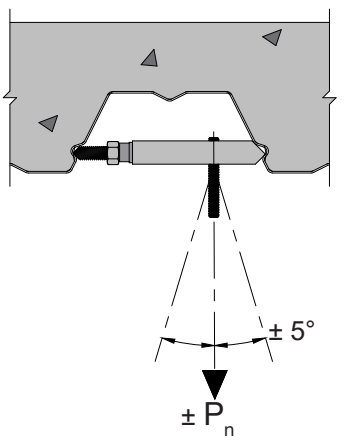
HANGING LOAD

f'_c = 3000 psi (min.) NWC or LWC

Part Number	Threaded Rod Size (in.)	Spacing (in.) 2	4	6	8	12	16	20	24	≥ 28
		Allowable Strength, P_n/Ω (lbs)								
NDH3812 or MDH3812	3/8 1/2	370	387	403	420	453	486	519	552	584
		Design Strength, ϕP_n (lbs)								
NDH3812 or MDH3812	3/8 1/2	600	626	653	680	733	787	840	893	947

MAXIMUM SPRINKLER PIPE DIAMETER

Part Number	Threaded Rod Size (in.)	Hanging NPS Diameter (in.)
NDH3812 or MDH3812	3/8	4
	1/2	5



Notes:

1. The strength of the FormLok Composite steel deck-slab, Badger No-Drill Hanger, or threaded rod, bolt, and other connecting hardware shall be equal or greater than the governing load combination as stipulated in the IBC or ASCE/SEI 7 including the fire sprinkler system loading.
2. The effect of connection spacing interaction, between the Badger NDH3812 or MDH3812 connections and any other connections to the composite steel-deck slab shall be considered.
3. Sprinkler pipe sizes at maximum hanger spacing conform to NFPA 13 based on the individual NDH3812 or MDH3812 connection strength without the effects of spacing interaction.
4. Badger No-Drill Hanger IAPMO recognized strengths published in this document are applicable to Verco FormLok deck manufactured after 6/21/2022.
5. Badger hangers shall be installed and inspected in accordance with manufacturer's instructions.

HANG AND BRACE YOUR MECHANICAL SYSTEMS FROM VERCO ROOF AND ACOUSTICAL ROOF DECK

ITW BUILDEX SAMMY X-PRESS CONNECTION STRENGTH

GR50 DECK

SAMMY X-Press Type				Deck Type			
				Solid		Perforated	
				Allowable	Design	Allowable	Design
Part Number	Model Number	Rod Size (in.)	Deck Gage	P_n/Ω (lbs)	ϕP_n (lbs)	P_n/Ω (lbs)	ϕP_n (lbs)
8181922	XP 200	1/4	22	332	528	232	363
8150922	XP 20	3/8	20	399	634	278	436
8294922	SXP 20	3/8	19	467	742	326	511
8272957	SXP 2.0	1/2	18	531	844	371	581
8181922	XP 200	1/4	16	664	1056	464	727
8153299	XP 35	3/8					
8295922	SXP 35	3/8					
8271957	SXP 3.5	1/2					

Notes:

1. The strength of the steel deck, Sammy X-Press connector, or threaded rod, bolt, and other connecting hardware shall be equal to or greater than the governing load combination as stipulated in the IBC or ASCE/SEI 7.
2. SAMMY X-Press connectors shall be installed per manufacturer's instructions.

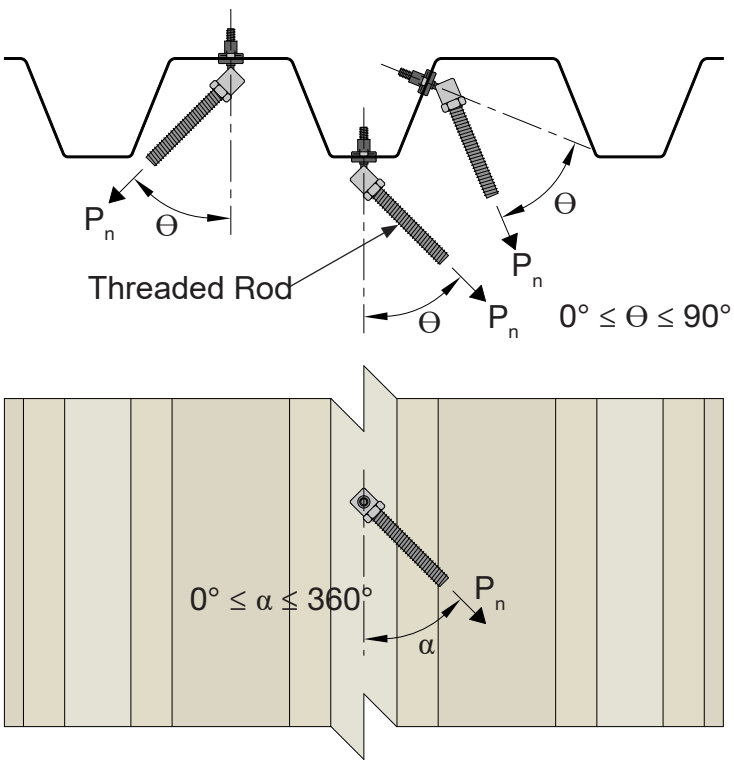
HANG SPRINKLER PIPES FROM VERCO ROOF AND ACOUSTICAL ROOF DECK

MAXIMUM SPRINKLER PIPE DIAMETER — **GR50 DECK**

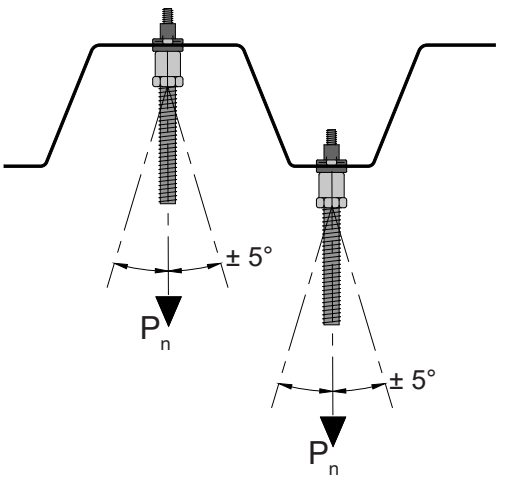
SAMMY X-Press Type				Deck Type	
Part Number	Model Number	Rod Size (in.)	Deck Gage	Solid (in.)	Perforated (in.)
8150922 8294922 8272957	XP 20 SXP 20 SXP 2.0	3/8 3/8 1/2	22	2½	2
			20	2½	2
			19	3	2½
			18	3½	2½
8153299 8295922 8271957	XP 35 SXP 35 SXP 3.5	3/8 3/8 1/2	16	4	3½

Notes:

1. Maximum fire sprinkler pipe size in accordance with NFPA 13.
2. The strength of the steel deck, Sammy X-Press connector, or threaded rod, bolt, and other connecting hardware shall be equal to or greater than the governing load combination as stipulated in the IBC or ASCE/SEI 7 including the fire sprinkler system loading.
3. SAMMY X-Press connectors shall be installed per manufacturer's instructions.



SXP 20, SXP2.0, SXP 35 and SXP 3.5 Connectors



XP 20 and XP 35 Connectors

DOVETAIL FORMLOK® DECK-SLAB
WEDGE-NUT HANGING SOLUTIONS

HANG YOUR MECHANICAL SYSTEMS FROM DOVETAIL FORMLOK COMPOSITE DECK-SLABS

DOVETAIL FORMLOK WEDGE-NUTS

- **IAPMO UES ER-423**
- **UL Listed**

HANGING LOAD

f'_c = 2500 psi (min.) NWC or LWC

Profile	Part Number	Connection Strength: Allowable P_n/Ω (lbs)	Connection Strength: Design ϕP_n (lbs)
2.0D FormLok	2.0D-WN-3/8NC 2.0D-WN-1/2NC	1392	2297
3.5D FormLok	3.5D-WN-3/8NC 3.5D-WN-1/2NC	1996	3294

MAXIMUM SPRINKLER PIPE DIAMETER

Profile	Part Number	NPS Diameter (in.)	UL No.
2.0D FormLok	2.0D-WN-3/8NC 2.0D-WN-1/2NC	4 6	EX27777
3.5D FormLok	3.5D-WN-3/8NC 3.5D-WN-1/2NC	4 8	EX27777

Notes:

1. The strength of the Dovetail FormLok Composite steel deck-slab, Wedge-Nut, or threaded rod, bolt, and other connecting hardware shall be equal or greater than the governing load combination as stipulated in the IBC or ASCE/SEI 7 including the fire sprinkler system loading.
2. Wedge-Nut connections shall be installed per manufacturer's instructions.

DOVETAIL FORMLOK WEDGE-NUT INSTALLATION

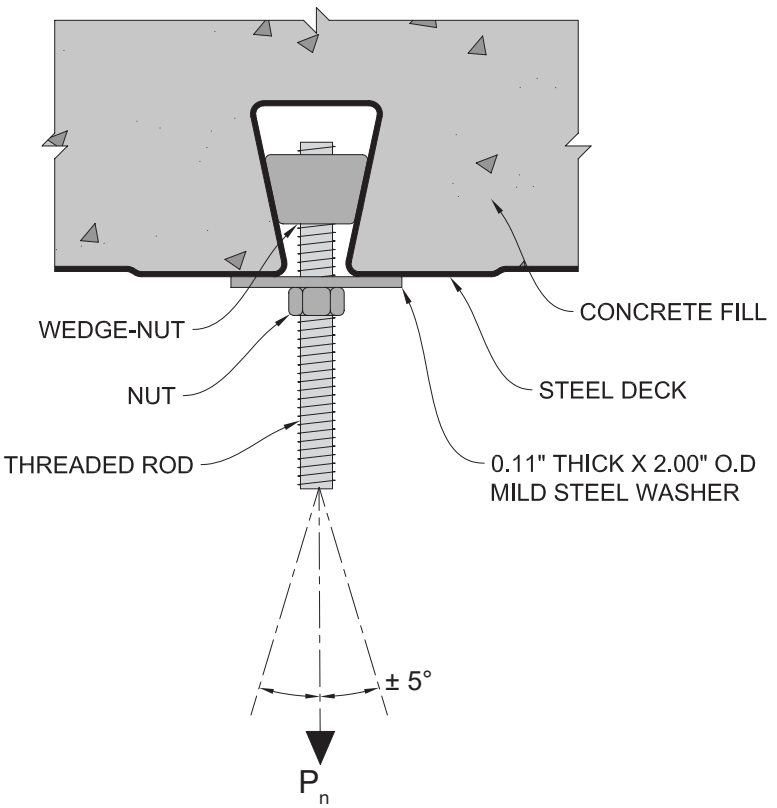


Figure 1

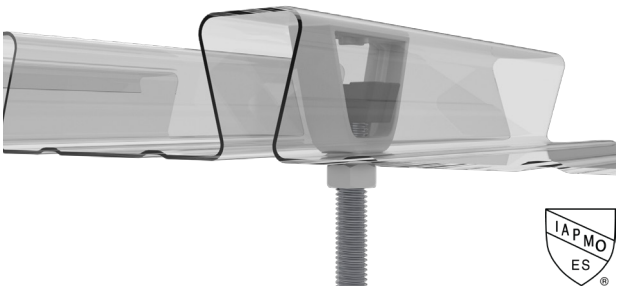
1. Deck ribs shall be free of foreign material to ensure the wedge-nut bears directly on the steel deck.
2. Insert wedge-nut and rotate to seat the surface against the webs of the steel deck as shown in Figure 1.
3. Position wedge-nut in the center of the rib with the threaded rod or bolt perpendicular to the bottom surface of the steel deck as shown in Figure 1.
4. Tighten the ⅜” threaded rod or bolt 1 to 1½ turns beyond snug tight.
5. Tighten the ½” threaded rod or bolt ½ to 1 turn beyond snug tight.

PINTAIL™ ANCHOR HANGING AND BRACING SOLUTIONS
for 2.0DS-30 FL / 2.0DF-30 FL COMPOSITE DECK-SLAB

Hang and Brace Loads from 2.0DS-30 FL / 2.0DF-30 FL Composite Deck-Slabs

PINTAIL™ ANCHOR

- **IAMPO UES ER-0423**
- **20PT3 compatible with 3/8" Threaded Rod**
- **20PT4 compatible with 1/2" Threaded Rod**

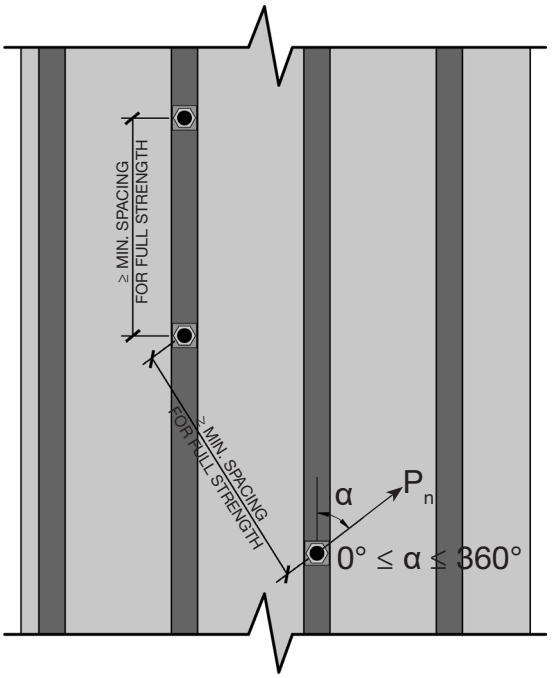


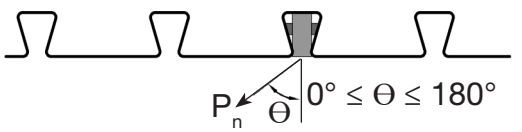
LOAD CAPACITIES

Ω=2.75 UNO

Part Number	Concrete Type	Allowable Load In Any Direction P_n/Ω (lbs) 0° ≤ α ≤ 360° ; 0° ≤ Θ ≤ 180° — Spacing (in.) 2 3/8	4	6	8	≥9 3/8*	Allowable Vertical Hanging Load P_n/Ω (lbs) α = n/a ; Θ = 0° — Spacing (in.) 2 3/8	4	6	8	≥9 3/8*
20PT3 or 20PT4	Normal Weight	416	441	471	502	521	810	857	916	975	1013
	Light Weight	345	365	390	415	432	670	710	759	808	840

*Minimum spacing for full strength. The minimum spacing applies to Pintail Anchors in the same or adjacent flute.
NW: f_c = 4000 psi (min.) & 150 lb/ft³ (min.) LW: f_c = 3000 psi (min.) & 110 lb/ft³ (min.)





Notes:

1. Basis of tabulated values is IAPMO Report ER-0423 and Vulcraft's Pintail Anchor online design tool. Allowable Loads In Any Direction table shows maximum load that can be applied in any horizontal, diagonal, or downward direction. Allowable Vertical Hanging Load table shows maximum load that can be hung with no allowance for horizontal capacity.
2. The strength of the Dovetail FL composite steel deck-slab, PinTail anchor, threaded rod or bolt, and other connecting hardware shall be equal or greater than the governing load combination as stipulated in the IBC or ASCE/SEI 7 including the fire sprinkler system loading.
3. The effect of connection spacing interaction, between the PinTail anchors and any other connections to the composite steel-deck slab shall be considered.
4. PinTail anchors shall be installed and inspected in accordance with manufacturer's instructions.

Custom values for specific conditions can be calculated using Vercos's Pintail Anchor online tool at www.vercodeck.com/solutions/designtools.

Designing fire sprinkler supports? Our online design tool helps you quickly calculate the maximum permitted sprinkler pipe size in accordance with NFPA 13.

PINTAIL™ ANCHOR HANGING AND BRACING SOLUTIONS
for 3.5DS-24 FL / 3.5DF-24 FL COMPOSITE DECK-SLAB

Hang and Brace Loads from 3.5DS-24 FL / 3.5DF-24 FL Composite Deck-Slabs

PINTAIL™ ANCHOR

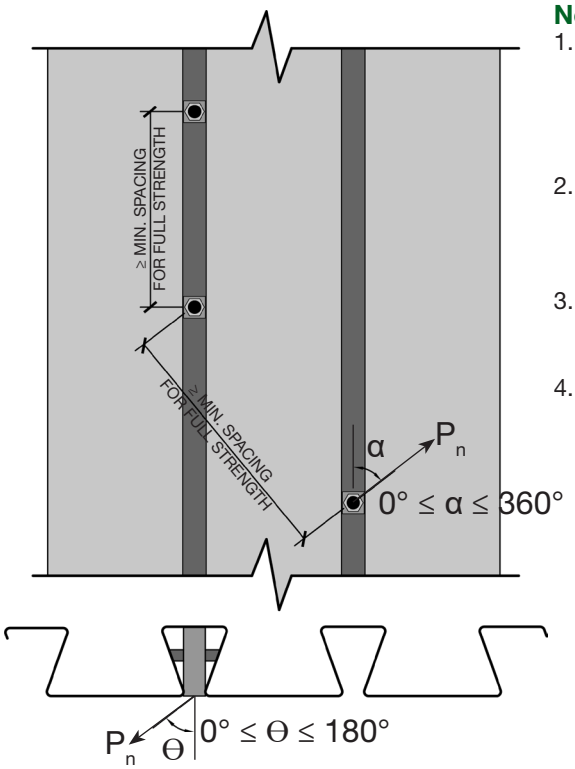
- **IAMPO UES ER-0423**
- **35PT3 compatible with 3/8" Threaded Rod**
- **35PT4 compatible with 1/2" Threaded Rod**
- **35PT5 compatible with 5/8" Threaded Rod**

LOAD CAPACITIES

Ω=2.75 UNO

Part Number	Concrete Type	Allowable Load In Any Direction P_n/Ω (lbs) $0° \le \alpha \le 360°$; $0° \le \Theta \le 180°$ Spacing (in.)				Allowable Vertical Hanging Load P_n/Ω (lbs) α = n/a ; $\Theta = 0°$ Spacing (in.)			
		4 3/16	12	24	≥34 3/8*	4 3/16	12	24	≥34 3/8*
35PT3	Normal Weight	579	676	825	954	2045	2062⁺	2062⁺	2062⁺
35PT4	Normal Weight	579	676	825	954	2045	2389	2915	3370
35PT5	Normal Weight	579	676	825	954	2045	2389	2915	3370
35PT3	Light Weight	479	560	683	790	1694	1979	2062⁺	2062⁺
35PT4	Light Weight	479	560	683	790	1694	1979	2414	2791
35PT5	Light Weight	479	560	683	790	1694	1979	2414	2791

*Minimum spacing for full strength. The minimum spacing applies to Pintail Anchors in the same or adjacent flute.
NW: f'_c = 4000 psi (min.) & 150 lb/ft³ (min.) LW: f'_c = 3000 psi (min.) & 110 lb/ft³ (min.) ⁺Ω = 2.0



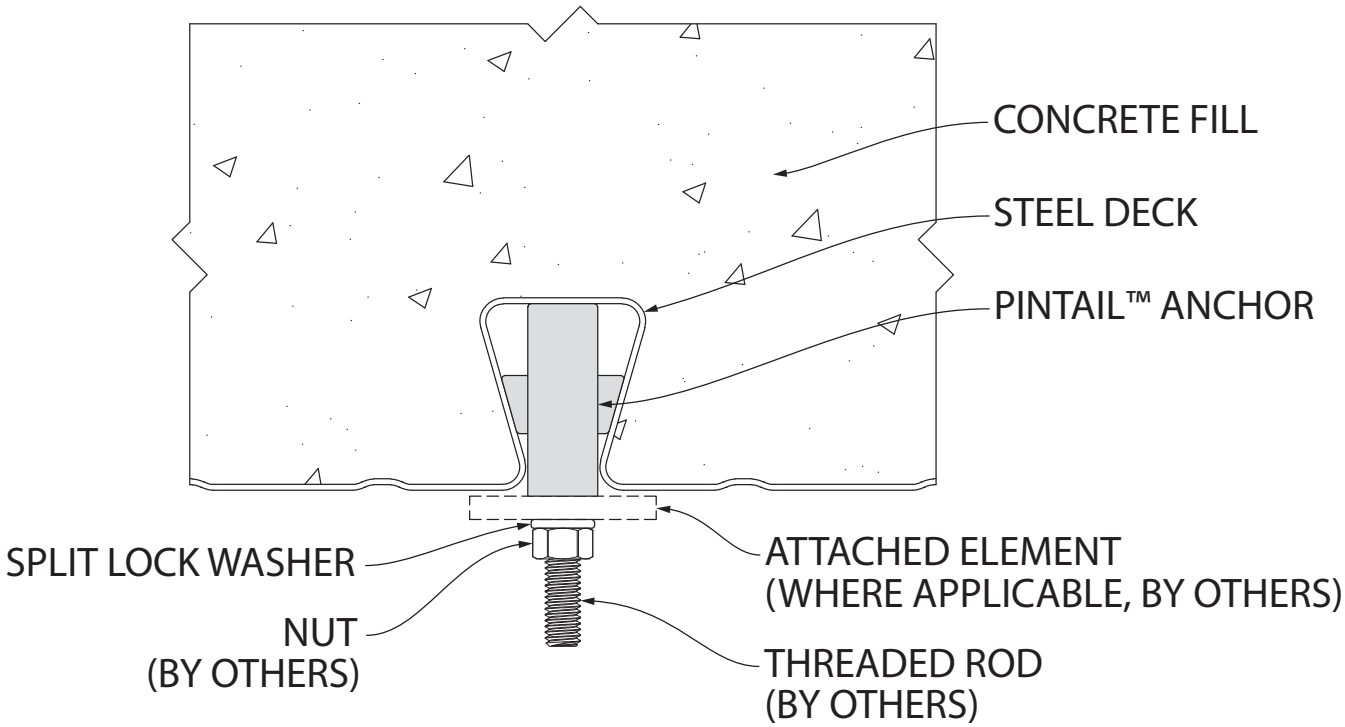
Notes:

1. Basis of tabulated values is IAPMO Report ER-0423 and Vulcraft's Pintail Anchor online design tool. Allowable Loads In Any Direction table shows maximum load that can be applied in any horizontal, diagonal, or downward direction. Allowable Vertical Hanging Load table shows maximum load that can be hung with no allowance for horizontal capacity.
2. The strength of the Dovetail FL composite steel deck-slab, PinTail anchor, threaded rod or bolt, and other connecting hardware shall be equal or greater than the governing load combination as stipulated in the IBC or ASCE/SEI 7 including the fire sprinkler system loading.
3. The effect of connection spacing interaction, between the PinTail anchors and any other connections to the composite steel-deck slab shall be considered.
4. PinTail anchors shall be installed and inspected in accordance with manufacturer's instructions.

Custom values for specific conditions can be calculated using Vercos's Pintail Anchor online tool at www.vercodeck.com/solutions/designtools.

Designing fire sprinkler supports? Our online design tool helps you quickly calculate the maximum permitted sprinkler pipe size in accordance with NFPA 13.

PINTAIL™ ANCHOR HANGING AND BRACING SOLUTIONS
INSTALLATION INSTRUCTIONS

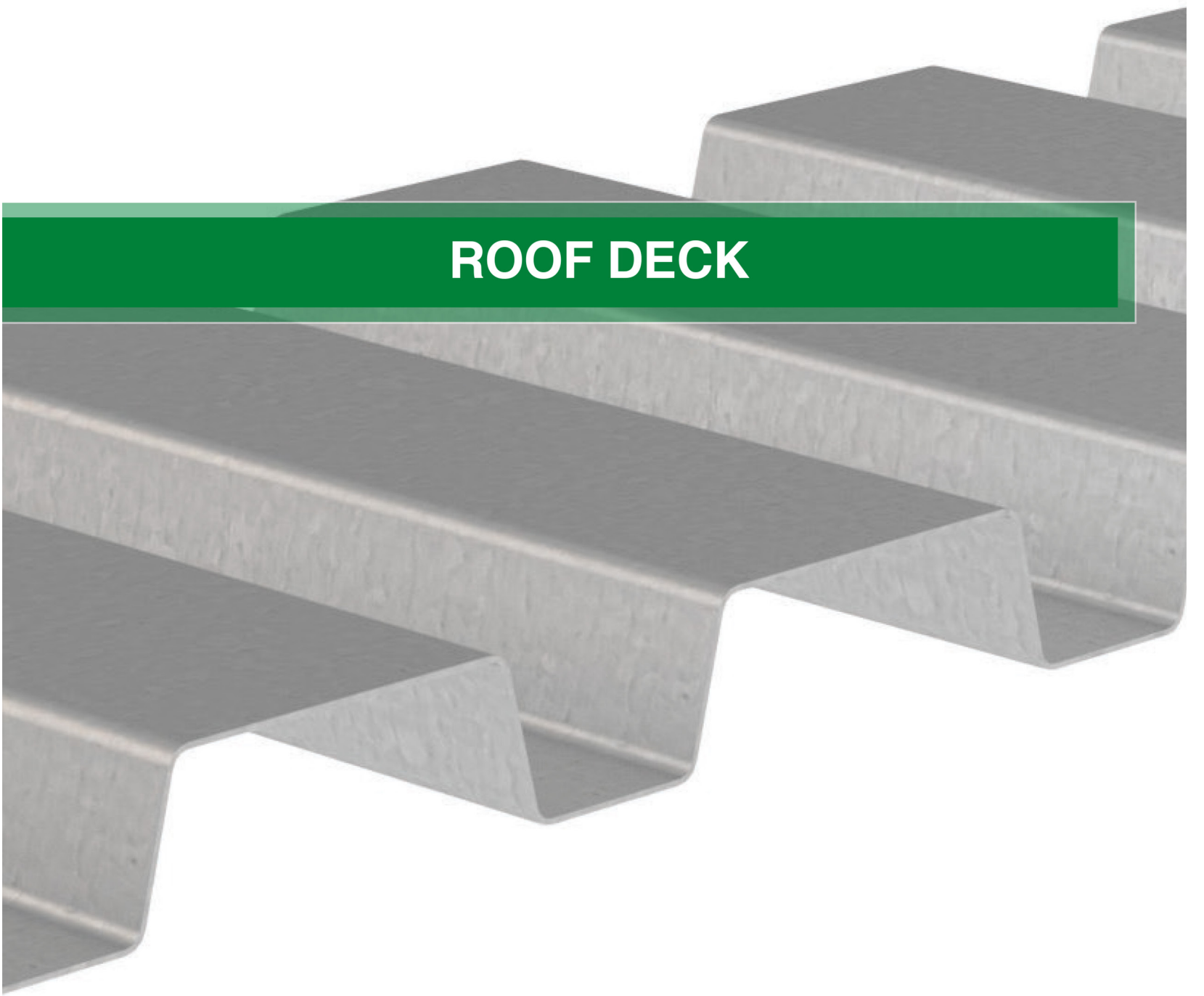


INSTALLATION:

1. Ensure deck rib is free of foreign material.
2. Insert threaded rod into PinTail™ anchor and thread into wedgenut.
3. Insert PinTail™ anchor into steel deck.
4. Push in threaded rod and rotate wedgenut 90 degrees.
5. Release threaded rod to seat the wedgenut against the webs of steel deck.
6. Attach element (where applicable) followed by split lock washer and nut.
7. Tighten nut until split lock washer is fully compressed.

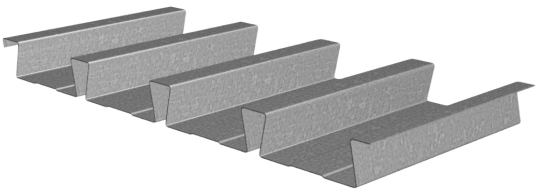
UES ER-0423

ROOF DECK

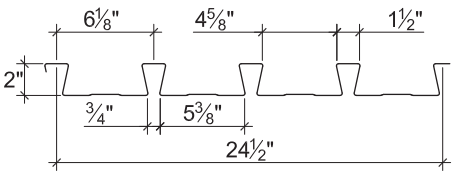


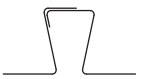
2.0D DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions





Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 40 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
22	2.1	0.0295	40	0.387	0.359	0.272	0.272	816	816	4401
20	2.6	0.0358	40	0.472	0.447	0.343	0.334	1029	1002	5316
18	3.4	0.0474	40	0.626	0.612	0.463	0.450	1389	1350	6968
16	4.3	0.0598	40	0.792	0.791	0.587	0.576	1761	1728	8698

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"
22	999	1098	1264	1403	1905	2255	1075	1158	1297	1415	2331	2792
20	1425	1561	1790	1982	2712	3192	1618	1737	1937	2105	3358	4001
18	2381	2596	2957	3262	4516	5272	2897	3094	3426	3705	5672	6705
16	3638	3951	4476	4919	6885	7973	4656	4953	5451	5871	8726	10235

Standard Features

- ASTM A653 SS GR 40 Min. with G90
- Standard lengths – 6'-0" to 42'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423, FM and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -19 gage
  - -Short cuts < 6'-0"
  - -Alternative metallic and painted finishes
- Acoustical Version

Inward Uniform Design Loads, LRFD (psf)

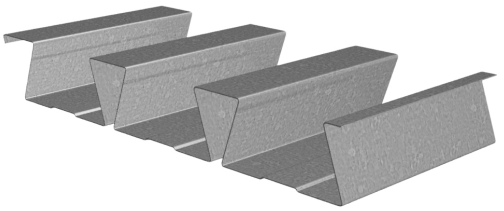
Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
22	Single	øW$_n$	408	261	181	133	102	81	65	54	45	39	33
		L/240	396	203	117	74	50	35	25	19	15	12	9
	Double	øW$_n$	398	257	179	132	101	80	65	54	45	39	33
		L/240	886	454	262	165	111	78	57	43	33	26	21
	Triple	øW$_n$	492	319	223	165	126	100	81	67	56	48	42
		L/240	694	355	206	130	87	61	44	33	26	20	16
20	Single	øW$_n$	514	329	229	168	129	102	82	68	57	49	42
		L/240	483	248	143	90	60	42	31	23	18	14	11
	Double	øW$_n$	488	315	220	162	124	98	80	66	55	47	41
		L/240	1103	565	327	206	138	97	71	53	41	32	26
	Triple	øW$_n$	602	391	273	202	155	123	100	82	69	59	51
		L/240	864	443	256	161	108	76	55	42	32	25	20
18	Single	øW$_n$	694	444	309	227	174	137	111	92	77	66	57
		L/240	641	328	190	120	80	56	41	31	24	19	15
	Double	øW$_n$	656	424	296	218	168	133	107	89	75	64	55
		L/240	1510	773	447	282	189	133	97	73	56	44	35
	Triple	øW$_n$	810	526	368	272	209	165	134	111	93	80	69
		L/240	1184	606	351	221	148	104	76	57	44	34	28
16	Single	øW$_n$	881	564	391	288	220	174	141	116	98	83	72
		L/240	811	415	240	151	101	71	52	39	30	24	19
	Double	øW$_n$	839	542	379	279	214	170	138	114	96	82	70
		L/240	1952	999	578	364	244	171	125	94	72	57	46
	Triple	øW$_n$	1035	672	471	348	267	211	172	142	119	102	88
		L/240	1530	783	453	285	191	134	98	74	57	45	36

Note:

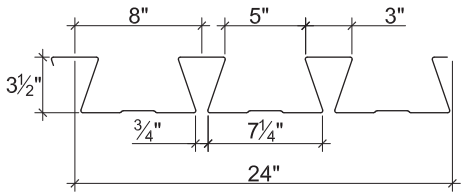
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.

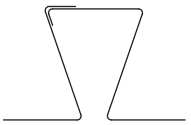
3.5D DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2Ie+Ig)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 40 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
20	3.3	0.0358	40	1.762	1.646	0.676	0.781	2028	2343	5221
18	4.3	0.0474	40	2.415	2.272	0.980	1.070	2940	3210	9138
16	5.4	0.0598	40	3.133	2.968	1.317	1.377	3951	4131	12635

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"
20	1060	1215	1346	1461	2170	2484	1092	1218	1324	1417	2564	2962
18	1787	2035	2245	2429	3602	4096	2004	2219	2399	2559	4354	4998
16	2744	3108	3416	3687	5475	6191	3270	3599	3876	4120	6717	7671

Standard Features

- ASTM A653 SS GR 40 Min. with G90
- Standard lengths – 6'-0" to 42'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423, FM and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -19 gage
  - -Short cuts < 6'-0"
  - -Alternative metallic and painted finishes
- Acoustical Version

3.5D DOVETAIL ROOF DECK
GRADE 40 STEEL

Inward Uniform Design Loads, LRFD (psf)

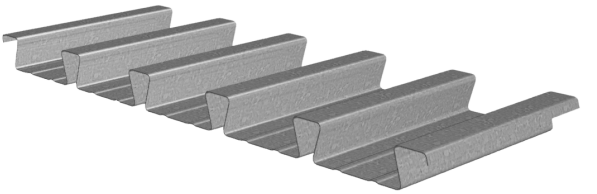
Deck Gage	Spans	Criteria	Span (ft-in.) 11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"
20	Single	ϕW_n	134	113	96	83	72	63	56	50	45	41	37
		L/240	87	67	53	42	34	28	24	20	17	14	12
	Double	ϕW_n	152	128	109	94	82	73	64	57	52	47	42
		L/240	195	150	118	95	77	63	53	45	38	32	28
	Triple	ϕW_n	188	159	136	117							
		L/240	153	118	93	74							
18	Single	ϕW_n	194	163	139	120	105	92	81	73	65	59	53
		L/240	119	92	72	58	47	39	32	27	23	20	17
	Double	ϕW_n	210	176	151	130	113	100	88	79	71	64	58
		L/240	270	208	163	131	106	88	73	62	52	45	39
	Triple	ϕW_n	261	220	188	162							
		L/240	211	163	128	102							
16	Single	ϕW_n	261	220	187	161	140	123	109	98	88	79	72
		L/240	154	119	93	75	61	50	42	35	30	26	22
	Double	ϕW_n	270	227	194	167	146	128	114	102	91	82	75
		L/240	352	271	213	171	139	114	95	80	68	59	51
	Triple	ϕW_n	336	283	242	209							
		L/240	276	213	167	134							

Note:

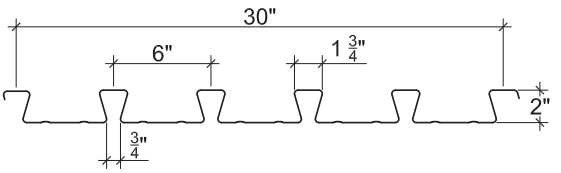
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.

2.0DS-30 DOVETAIL ROOF DECK

- Enhanced 2-Coat Polyester Paint
- White Factory Primer Paint
- Galvanized Finish
- FM Listed



Nominal Dimensions



Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
22	2.2	0.0299	50	0.430	0.382	0.301	0.306	1130	1146	5068
20	2.7	0.0359	50	0.520	0.473	0.378	0.373	1417	1398	6047
18	3.6	0.0478	50	0.695	0.661	0.527	0.509	1977	1907	7949
16	4.5	0.0598	50	0.872	0.856	0.667	0.648	2501	2430	9812

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"
22	1275	1401	1613	1791	2316	2669	1315	1416	1586	1729	2833	3298
20	1785	1955	2241	2482	3252	3724	1946	2090	2330	2532	4025	4656
18	3014	3286	3743	4127	5514	6249	3553	3794	4200	4541	6926	7930
16	4534	4924	5578	6130	8315	9340	5637	5996	6599	7108	10538	11960

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423, FM and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -21,19 or 17 gage
  - -Alternative metallic and painted finishes
- Acoustical Version

Inward Uniform Design Loads, LRFD (psf)

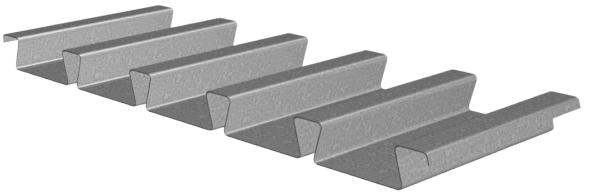
Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
22	Single	ϕW_n	565	361	251	184	141	112	90	75	63	53	46
		L/240	440	226	131	82	55	39	28	21	16	13	10
	Double	ϕW_n	551	358	250	185	142	112	91	75	63	54	47
		L/240	943	483	279	176	118	83	60	45	35	27	22
	Triple	ϕW_n	678	442	311	230	177	140	114	94	79	67	
		L/240	739	378	219	138	92	65	47	36	27	22	
20	Single	ϕW_n	708	453	315	231	177	140	113	94	79	67	58
		L/240	533	273	158	99	67	47	34	26	20	16	12
	Double	ϕW_n	671	436	305	225	173	137	111	92	77	66	57
		L/240	1167	598	346	218	146	102	75	56	43	34	27
	Triple	ϕW_n	825	539	378	280	215	171	138	115	96	82	
		L/240	915	468	271	171	114	80	59	44	34	27	
18	Single	ϕW_n	988	633	439	323	247	195	158	131	110	94	81
		L/240	712	364	211	133	89	62	46	34	26	21	17
	Double	ϕW_n	913	594	416	307	236	187	152	125	105	90	78
		L/240	1631	835	483	304	204	143	104	78	60	48	38
	Triple	ϕW_n	1122	733	515	381	293	233	189	156	132	112	
		L/240	1278	654	379	239	160	112	82	61	47	37	
16	Single	ϕW_n	1250	800	556	408	313	247	200	165	139	118	102
		L/240	893	457	265	167	112	78	57	43	33	26	21
	Double	ϕW_n	1161	755	529	391	300	238	193	160	134	115	99
		L/240	2112	1081	626	394	264	185	135	102	78	62	49
	Triple	ϕW_n	1424	932	655	485	373	296	240	199	167	143	
		L/240	1655	848	490	309	207	145	106	80	61	48	

Notes:

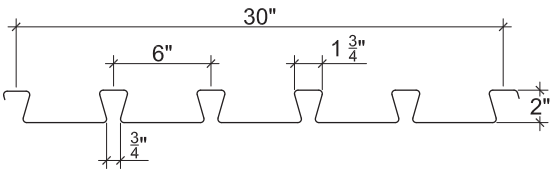
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

2.0DF-30 DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions



Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
20	2.7	0.0359	50	0.524	0.468	0.380	0.344	1424	1291	6047
18	3.6	0.0478	50	0.699	0.660	0.530	0.491	1987	1841	7949
16	4.5	0.0598	50	0.877	0.857	0.670	0.632	2514	2369	9812

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"
20	1785	1955	2241	2482	3252	3724	1946	2090	2330	2532	4025	4656
18	3014	3286	3743	4127	5514	6249	3553	3794	4200	4541	6926	7930
16	4534	4924	5578	6130	8315	9340	5637	5996	6599	7108	10538	11960

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423, FM and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -22, 21,19 or 17 gage
  - -Alternative metallic and painted finishes
- Acoustical Version

2.0DF-30 DOVETAIL ROOF DECK
GRADE 50 STEEL

Inward Uniform Design Loads, LRFD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
20	Single	ϕW_n	712	456	316	233	178	141	114	94	79	67	58
		L/240	537	275	159	100	67	47	34	26	20	16	13
	Double	ϕW_n	624	404	282	208	160	127	103	85	71	61	53
		L/240	1155	591	342	215	144	101	74	56	43	34	27
	Triple	ϕW_n	768	500	351	259	199	158	128	106	89	76	
		L/240	905	463	268	169	113	79	58	44	34	26	
18	Single	ϕW_n	994	636	442	324	248	196	159	131	110	94	81
		L/240	716	367	212	134	89	63	46	34	27	21	17
	Double	ϕW_n	884	574	402	297	228	180	146	121	102	87	75
		L/240	1628	834	483	304	204	143	104	78	60	47	38
	Triple	ϕW_n	1087	710	498	369	283	225	182	151	127	108	
		L/240	1276	654	378	238	160	112	82	61	47	37	
16	Single	ϕW_n	1257	804	559	410	314	248	201	166	140	119	103
		L/240	898	460	266	168	112	79	57	43	33	26	21
	Double	ϕW_n	1134	737	516	381	293	232	188	156	131	112	96
		L/240	2115	1083	627	395	264	186	135	102	78	62	49
	Triple	ϕW_n	1392	910	640	473	364	289	234	194	163	139	
		L/240	1657	849	491	309	207	146	106	80	61	48	

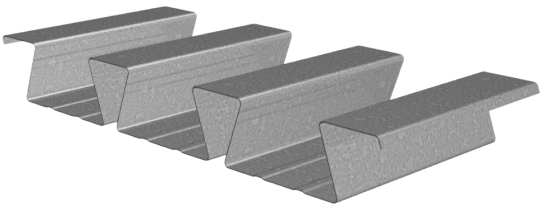
Notes:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

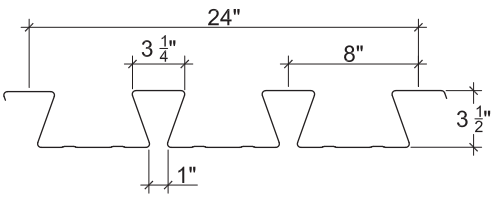
3.5DS-24 DOVETAIL ROOF DECK
GRADE 50 STEEL

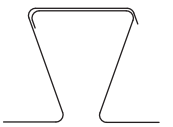
LRFD

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
20	3.4	0.0359	50	1.951	1.805	0.714	0.757	2677	2840	5706
18	4.5	0.0478	50	2.681	2.505	1.052	1.108	3947	4156	10356
16	5.6	0.0598	50	3.421	3.243	1.414	1.505	5301	5645	14868

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"
20	1315	1507	1669	1812	2580	2953	1301	1450	1576	1687	3044	3515
18	2241	2553	2815	3046	4363	4960	2435	2695	2915	3108	5269	6048
16	3392	3843	4223	4557	6567	7425	3924	4319	4652	4945	8048	9192

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423, FM and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -19 or 17 gage
  - -Alternative metallic and painted finishes
- Acoustical Version

Inward Uniform Design Loads, LRFD (psf)

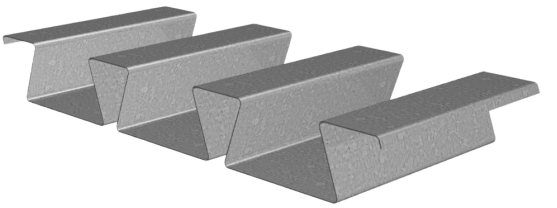
Deck Gage	Spans	Criteria	Span (ft-in.) 11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"
20	Single	ϕW_n	177	149	127	109	95	84	74	66	59	54	49
		L/240	96	74	58	47	38	31	26	22	19	16	14
	Double	ϕW_n	183	154	132	114	100	88	78	69	62	56	
		L/240	214	165	130	104	84	70	58	49	42	36	
	Triple	ϕW_n	226	191	164								
		L/240	168	129	102								
18	Single	ϕW_n	261	219	187	161	140	123	109	97	87	79	72
		L/240	132	102	80	64	52	43	36	30	26	22	19
	Double	ϕW_n	270	228	194	168	146	129	114	102	92	83	
		L/240	297	229	180	144	117	97	81	68	58	49	
	Triple	ϕW_n	336	283	242								
		L/240	233	179	141								
16	Single	ϕW_n	350	294	251	216	188	166	147	131	117	106	96
		L/240	168	130	102	82	66	55	46	38	33	28	24
	Double	ϕW_n	368	310	264	228	199	175	155	139	124	112	
		L/240	385	296	233	187	152	125	104	88	75	64	
	Triple	ϕW_n	457	385	329								
		L/240	302	232	183								

Notes:

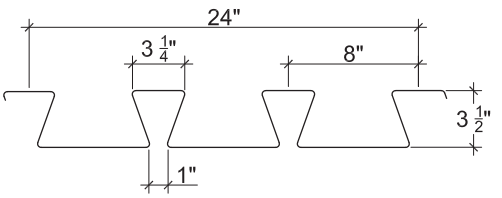
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

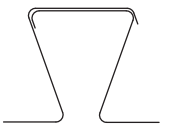
3.5DF-24 DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions





Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
18	4.5	0.0478	50	2.688	2.496	1.055	0.935	3957	3507	10356
16	5.6	0.0598	50	3.430	3.256	1.417	1.289	5314	4835	14868

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"
18	2241	2553	2815	3046	4363	4960	2435	2695	2915	3108	5269	6048
16	3392	3843	4223	4557	6567	7425	3924	4319	4652	4945	8048	9192

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423, FM and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -17 gage
  - -Alternative metallic and painted finishes
- Acoustical Version

Inward Uniform Design Loads, LRFD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.) 11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"
18	Single	$øW_n$	262	220	187	162	141	124	110	98	88	79	72
		L/240	132	102	80	64	52	43	36	30	26	22	19
	Double	$øW_n$	229	193	165	142	124	109	97	86	77	70	
		L/240	296	228	179	144	117	96	80	68	57	49	
	Triple	$øW_n$	285	240	205								
		L/240	232	179	141								
16	Single	$øW_n$	351	295	252	217	189	166	147	131	118	106	96
		L/240	169	130	102	82	67	55	46	39	33	28	24
	Double	$øW_n$	316	266	227	196	171	150	133	119	107	96	
		L/240	386	298	234	187	152	126	105	88	75	64	
	Triple	$øW_n$	393	331	283								
		L/240	303	233	183								

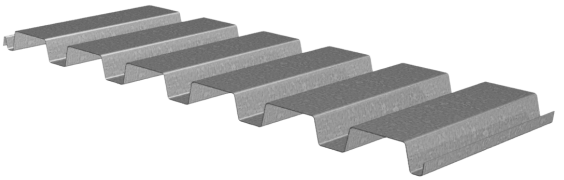
Notes:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

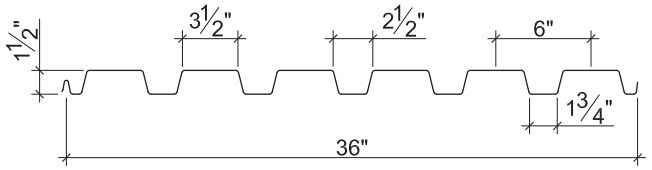
PLB™-36/HSB®-36 ROOF DECKS
GRADE 50 STEEL

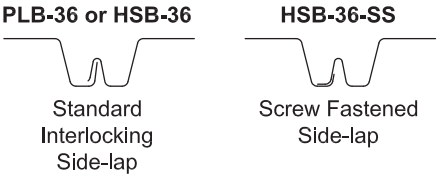
B ROOF DECKS

- **PLB-36 Deck used with PunchLok® II System**
- **HSB-36 Deck used with TSWs or BPs**
- **HSB-36-SS Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear $øV_n$ (lb/ft)
22	1.9	0.0299	50	0.178	0.192	0.176	0.188	4085
20	2.3	0.0359	50	0.219	0.231	0.230	0.237	4894
18	2.9	0.0478	50	0.302	0.306	0.314	0.331	6481
16	3.5	0.0598	50	0.381	0.381	0.399	0.410	8059

Design Reactions at Supports Based on Web Crippling, $øR_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"
22	1301	1430	1645	1779	2318	2484	1366	1472	1648	1757	2876	3097
20	1817	1991	2282	2461	3256	3479	2014	2162	2410	2562	4081	4383
18	3062	3338	3801	4080	5524	5874	3653	3902	4318	4569	7010	7493
16	4599	4994	5658	6049	8336	8828	5775	6144	6761	7125	10656	11345

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. with gray primer
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018, UL, and FM Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Web and Fully Perforated Acoustical Versions
- HSB-30-NS Deck used with Side-lap screws

Inward Uniform Design Loads, LRFD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.) 2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	øW$_n$	1319	586	330	211	147	108	82	65	53	44	37
		L/240	1459	432	182	93	54	34	23	16	12	9	7
	Double	øW$_n$	1294	602	344	222	155	114	88	69	56	46	39
		L/240	3790	1123	474	243	140	88	59	42	30	23	18
	Triple	øW$_n$	1565	740	426	276	193	142	109	86	70	58	49
		L/240	2970	880	371	190	110	69	46	33	24	18	14
20	Single	øW$_n$	1724	766	431	276	192	141	108	85	69	57	48
		L/240	1795	532	224	115	66	42	28	20	14	11	8
	Double	øW$_n$	1619	756	434	280	195	144	110	87	71	59	49
		L/240	4560	1351	570	292	169	106	71	50	36	27	21
	Triple	øW$_n$	1952	929	536	348	243	179	138	109	88	73	61
		L/240	3574	1059	447	229	132	83	56	39	29	21	17
18	Single	øW$_n$	2354	1046	589	377	262	192	147	116	94	78	65
		L/240	2475	733	309	158	92	58	39	27	20	15	11
	Double	øW$_n$	2239	1051	604	390	272	201	154	122	99	82	69
		L/240	6040	1790	755	387	224	141	94	66	48	36	28
	Triple	øW$_n$	2690	1288	746	484	339	250	192	152	123	102	86
		L/240	4734	1403	592	303	175	110	74	52	38	28	22
16	Single	øW$_n$	2993	1330	748	479	333	244	187	148	120	99	83
		L/240	3122	925	390	200	116	73	49	34	25	19	14
	Double	øW$_n$	2775	1302	748	483	337	249	191	151	122	101	85
		L/240	7521	2228	940	481	279	175	118	83	60	45	35
	Triple	øW$_n$	3335	1596	924	599	419	310	238	188	153	126	106
		L/240	5895	1747	737	377	218	137	92	65	47	35	27

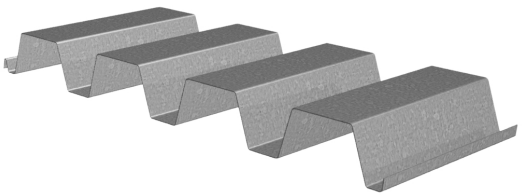
Note:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.

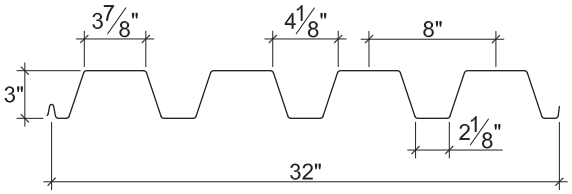
PLN3™-32/HSN3™-32 ROOF DECKS
GRADE 50 STEEL

N3 ROOF DECKS

- **PLN3-32 Deck used with PunchLok® II System**
- **HSN3-32 Deck used with TSWs or BPs**
- **HSN3-32-NS Deck used with Side-lap Screws**
- **HSN3-32-SS Deck used with Side-lap Screws**



Nominal Dimensions



Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øV_n (lb/ft)
22	2.0	0.0299	50	0.721	0.785	0.353	0.405	3566
20	2.4	0.0359	50	0.890	0.953	0.452	0.509	5821
18	3.1	0.0478	50	1.229	1.273	0.671	0.722	10371
16	3.9	0.0598	50	1.570	1.587	0.883	0.932	13843

Design Reactions at Supports Based on Web Crippling, øR_n (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
22	860	945	1087	1208	1843	2152	821	885	991	1080	2154	2539
20	1215	1331	1525	1690	2584	3203	1241	1332	1485	1614	3072	3861
18	2079	2266	2581	2846	4374	5476	2325	2484	2749	2973	5315	6763
16	3155	3427	3882	4266	6586	8173	3752	3992	4393	4731	8115	10239

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. with gray primer
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018, UL, and FM Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Web and Fully Perforated Acoustical Versions

Inward Uniform Design Loads, LRFD (psf)

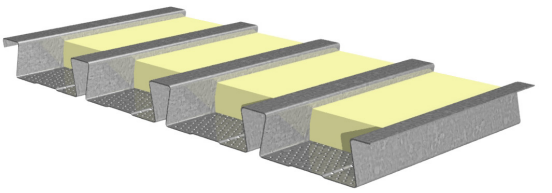
Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	6'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
22	Single	ϕW_n	662	294	165	131	106	88	74	54	41	33	26
		L/240	739	219	92	65	47	36	27	17	12	8	6
	Double	ϕW_n	670	318	184	146	119	99	83	61	47	37	30
		L/240	1937	574	242	170	124	93	72	45	30	21	15
	Triple	ϕW_n	800	388	226	180	147	122	103	76			
		L/240	1518	450	190	133	97	73	56	35			
20	Single	ϕW_n	847	377	212	167	136	112	94	69	53	42	34
		L/240	912	270	114	80	58	44	34	21	14	10	7
	Double	ϕW_n	883	409	234	185	151	125	105	77	59	47	38
		L/240	2351	697	294	206	150	113	87	55	37	26	19
	Triple	ϕW_n	1071	504	290	230	187	155	131	96			
		L/240	1843	546	230	162	118	89	68	43			
18	Single	ϕW_n	1258	559	315	249	201	166	140	103	79	62	50
		L/240	1259	373	157	111	81	61	47	29	20	14	10
	Double	ϕW_n	1287	588	334	265	215	178	150	110	84	67	54
		L/240	3141	931	393	276	201	151	116	73	49	34	25
	Triple	ϕW_n	1576	728	415	329	267	222	186	137			
		L/240	2462	729	308	216	158	118	91	57			
16	Single	ϕW_n	1656	736	414	327	265	219	184	135	103	82	66
		L/240	1608	476	201	141	103	77	60	38	25	18	13
	Double	ϕW_n	1666	760	431	342	277	230	193	142	109	86	70
		L/240	3916	1160	489	344	251	188	145	91	61	43	31
	Triple	ϕW_n	2043	941	537	425	346	286	241	177			
		L/240	3069	909	384	269	196	148	114	72			

Note:

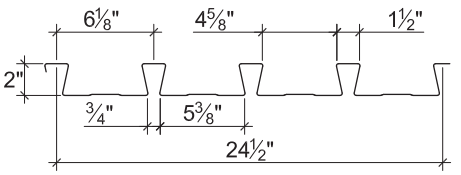
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.

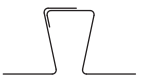
2.0DA ACOUSTICAL DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions





Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 40 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
22	2.0	0.0295	40	0.340	0.310	0.261	0.258	783	774	4401
20	2.4	0.0358	40	0.415	0.385	0.330	0.317	990	951	5316
18	3.2	0.0474	40	0.551	0.528	0.445	0.427	1335	1281	6968
16	4.0	0.0598	40	0.697	0.684	0.564	0.546	1692	1638	8698

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"
22	999	1098	1264	1403	1905	2255	1075	1158	1297	1415	2331	2792
20	1425	1561	1790	1982	2712	3192	1618	1737	1937	2105	3358	4001
18	2381	2596	2957	3262	4516	5272	2897	3094	3426	3705	5672	6705
16	3638	3951	4476	4919	6885	7973	4656	4953	5451	5871	8726	10235

Standard Features

- ASTM A653 SS GR 40 Min. with G90
- Standard lengths – 6'-0" to 42'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423 and FM Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -19 gage
  - -Short cuts < 6'-0"
  - -Alternative metallic and painted finishes

Inward Uniform Design Loads, LRFD (psf)

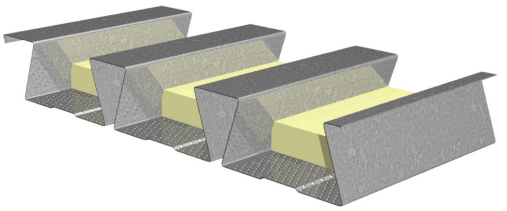
Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
22	Single	øW$_n$	392	251	174	128	98	77	63	52	44	37	32
		L/240	348	178	103	65	44	31	22	17	13	10	8
	Double	øW$_n$	378	244	170	125	96	76	62	51	43	37	32
		L/240	765	392	227	143	96	67	49	37	28	22	18
	Triple	øW$_n$	468	303	212	156	120	95	77	64	54	46	39
		L/240	600	307	178	112	75	53	38	29	22	17	14
20	Single	øW$_n$	495	317	220	162	124	98	79	65	55	47	40
		L/240	425	218	126	79	53	37	27	20	16	12	10
	Double	øW$_n$	464	300	209	154	118	93	76	63	53	45	39
		L/240	950	486	281	177	119	83	61	46	35	28	22
	Triple	øW$_n$	574	372	260	192	147	117	95	78	66	56	48
		L/240	745	381	221	139	93	65	48	36	28	22	17
18	Single	øW$_n$	667	427	297	218	167	132	107	88	74	63	54
		L/240	564	289	167	105	71	50	36	27	21	16	13
	Double	øW$_n$	624	403	281	207	159	126	102	84	71	60	52
		L/240	1303	667	386	243	163	114	83	63	48	38	30
	Triple	øW$_n$	772	500	350	258	198	157	127	105	89	76	65
		L/240	1021	523	303	191	128	90	65	49	38	30	24
16	Single	øW$_n$	846	541	376	276	212	167	135	112	94	80	69
		L/240	714	366	212	133	89	63	46	34	26	21	17
	Double	øW$_n$	797	515	360	265	203	161	130	108	91	77	67
		L/240	1688	864	500	315	211	148	108	81	63	49	39
	Triple	øW$_n$	985	639	447	330	253	201	163	135	113	97	83
		L/240	1323	677	392	247	165	116	85	64	49	39	31

Note:

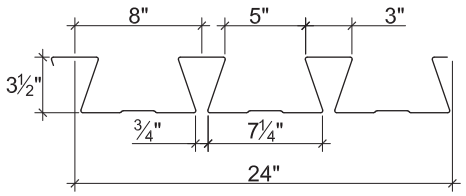
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.

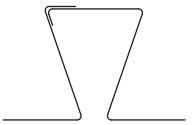
3.5DA ACOUSTICAL DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 40 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
20	3.1	0.0358	40	1.531	1.430	0.655	0.657	1965	1971	5221
18	4.1	0.0474	40	2.098	1.950	0.934	0.928	2802	2784	9138
16	5.1	0.0598	40	2.719	2.533	1.255	1.241	3765	3723	12635

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 2"	3"	4"	5"	One-Flange Loading, Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 2"	3"	4"	5"	Two-Flange Loading, Interior Bearing 4"	6"
20	1060	1215	1346	1461	2170	2484	1092	1218	1324	1417	2564	2962
18	1787	2035	2245	2429	3602	4096	2004	2219	2399	2559	4354	4998
16	2744	3108	3416	3687	5475	6191	3270	3599	3876	4120	6717	7671

Standard Features

- ASTM A653 SS GR 40 Min. with G90
- Standard lengths – 6'-0" to 42'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423 and FM Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -19 gage
  - -Short cuts < 6'-0"
  - -Alternative metallic and painted finishes

Inward Uniform Design Loads, LRFD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.) 11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"
20	Single	ϕW_n	130	109	93	80	70	61	54	49	44	39	36
		L/240	75	58	46	37	30	25	20	17	15	13	11
	Double	ϕW_n	128	108	92	80	70	61	54	48	43	39	36
		L/240	170	131	103	82	67	55	46	39	33	28	24
	Triple	ϕW_n	160	135	115	99							
		L/240	133	102	81	65							
18	Single	ϕW_n	185	156	133	114	100	88	78	69	62	56	51
		L/240	103	80	63	50	41	34	28	24	20	17	15
	Double	ϕW_n	182	153	131	113	98	87	77	68	61	56	50
		L/240	231	178	140	112	91	75	63	53	45	38	33
	Triple	ϕW_n	227	191	163	141							
		L/240	181	140	110	88							
16	Single	ϕW_n	249	209	178	154	134	118	104	93	83	75	68
		L/240	134	103	81	65	53	44	36	31	26	22	19
	Double	ϕW_n	244	205	175	151	132	116	103	92	82	74	67
		L/240	301	231	182	146	119	98	81	69	58	50	43
	Triple	ϕW_n	304	256	218	188							
		L/240	236	181	143	114							

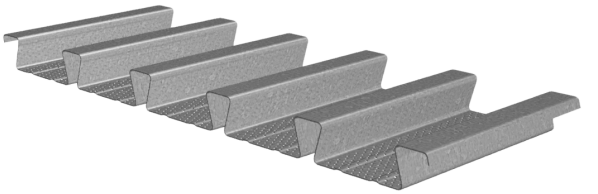
Note:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.

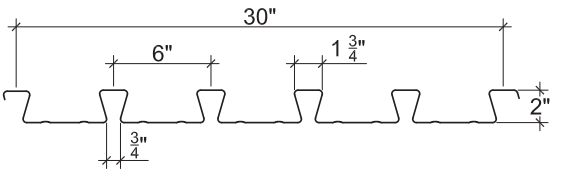
2.0DS-30 AC ACOUSTICAL DOVETAIL ROOF DECK
GRADE 50 STEEL

2.0DS-30 AC DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions



Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
22	2.1	0.0299	50	0.370	0.331	0.281	0.252	1053	945	5068
20	2.5	0.0359	50	0.446	0.417	0.352	0.337	1319	1265	6047
18	3.4	0.0478	50	0.596	0.600	0.481	0.482	1805	1809	7949
16	4.3	0.0598	50	0.765	0.793	0.617	0.624	2315	2340	9812

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"
22	1275	1401	1613	1791	2316	2669	1315	1416	1586	1729	2833	3298
20	1785	1955	2241	2482	3252	3724	1946	2090	2330	2532	4025	4656
18	3014	3286	3743	4127	5514	6249	3553	3794	4200	4541	6926	7930
16	4534	4924	5578	6130	8315	9340	5637	5996	6599	7108	10538	11960

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423 and FM Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -21,19 or 17 gage
  - -Alternative metallic and painted finishes

2.0DS-30 AC ACOUSTICAL DOVETAIL ROOF DECK
GRADE 50 STEEL

Inward Uniform Design Loads, LRFD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
22	Single	ϕW_n	527	337	234	172	132	104	84	70	59	50	43
		L/240	379	194	112	71	47	33	24	18	14	11	9
	Double	ϕW_n	460	297	208	153	117	93	75	62	52	45	38
		L/240	817	418	242	152	102	72	52	39	30	24	19
	Triple	ϕW_n	569	369	258	190	146	116	94	78	65	56	
		L/240	640	328	190	119	80	56	41	31	24	19	
20	Single	ϕW_n	659	422	293	215	165	130	105	87	73	62	54
		L/240	457	234	135	85	57	40	29	22	17	13	11
	Double	ϕW_n	612	396	277	204	157	124	101	83	70	60	51
		L/240	1029	527	305	192	129	90	66	49	38	30	24
	Triple	ϕW_n	754	491	344	254	195	155	125	104	87	74	
		L/240	806	413	239	150	101	71	52	39	30	23	
18	Single	ϕW_n	903	578	401	295	226	178	144	119	100	85	74
		L/240	610	313	181	114	76	54	39	29	23	18	14
	Double	ϕW_n	870	564	395	292	224	177	144	119	100	85	74
		L/240	1480	758	439	276	185	130	95	71	55	43	35
	Triple	ϕW_n	1070	698	490	362	279	221	179	148	125	106	
		L/240	1160	594	344	217	145	102	74	56	43	34	
16	Single	ϕW_n	1157	741	514	378	289	229	185	153	129	110	94
		L/240	784	401	232	146	98	69	50	38	29	23	18
	Double	ϕW_n	1121	728	510	377	289	229	186	154	129	110	95
		L/240	1957	1002	580	365	245	172	125	94	72	57	46
	Triple	ϕW_n	1377	900	632	468	360	285	232	192	161	138	
		L/240	1534	785	454	286	192	135	98	74	57	45	

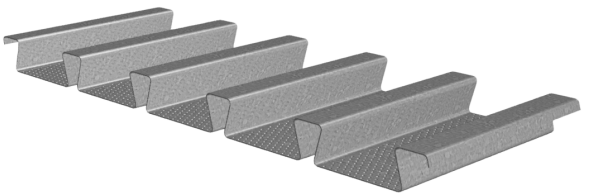
Notes:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

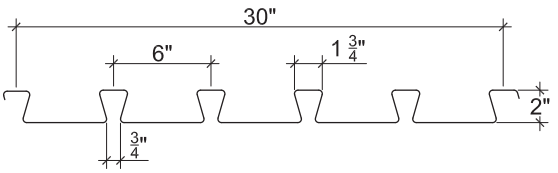
2.0DF-30 AC ACOUSTICAL DOVETAIL ROOF DECK
GRADE 50 STEEL

2.0DF-30 AC DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions



Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
20	2.5	0.0359	50	0.449	0.431	0.353	0.306	1324	1148	6047
18	3.4	0.0478	50	0.599	0.600	0.483	0.469	1813	1758	7949
16	4.2	0.0598	50	0.752	0.774	0.608	0.614	2281	2303	9812

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

	Bearing Length of Webs											
	One-Flange Loading						Two-Flange Loading					
Deck Gage	End Bearing				Interior Bearing		End Bearing				Interior Bearing	
	1½"	2"	3"	4"	3"	5"	1½"	2"	3"	4"	3"	5"
20	1785	1955	2241	2482	3252	3724	1946	2090	2330	2532	4025	4656
18	3014	3286	3743	4127	5514	6249	3553	3794	4200	4541	6926	7930
16	4534	4924	5578	6130	8315	9340	5637	5996	6599	7108	10538	11960

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423 and FM Listed

Optional Features

- Inquire regarding cost and lead times for:
  -22, 21,19 or 17 gage
  -Alternative metallic and painted finishes

2.0DF-30 AC ACOUSTICAL DOVETAIL ROOF DECK
GRADE 50 STEEL

Inward Uniform Design Loads, LRFD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
20	Single	ϕW_n	662	424	294	216	165	131	106	88	74	63	54
		L/240	460	235	136	86	57	40	29	22	17	13	11
	Double	ϕW_n	558	361	252	186	142	113	91	76	64	54	47
		L/240	1063	544	315	198	133	93	68	51	39	31	25
	Triple	ϕW_n	690	448	313	231	178	141	114	94	79	68	
		L/240	834	427	247	156	104	73	53	40	31	24	
18	Single	ϕW_n	906	580	403	296	227	179	145	120	101	86	74
		L/240	614	314	182	114	77	54	39	30	23	18	14
	Double	ϕW_n	847	549	384	283	218	172	140	116	97	83	72
		L/240	1480	758	439	276	185	130	95	71	55	43	35
	Triple	ϕW_n	1043	680	477	352	271	215	174	144	121	103	
		L/240	1160	594	344	217	145	102	74	56	43	34	
16	Single	ϕW_n	1140	730	507	372	285	225	182	151	127	108	93
		L/240	770	394	228	144	96	68	49	37	29	22	18
	Double	ϕW_n	1105	717	502	371	285	226	183	151	127	109	94
		L/240	1910	978	566	356	239	168	122	92	71	56	45
	Triple	ϕW_n	1358	887	623	461	354	281	228	189	159	135	
		L/240	1497	766	444	279	187	131	96	72	55	44	

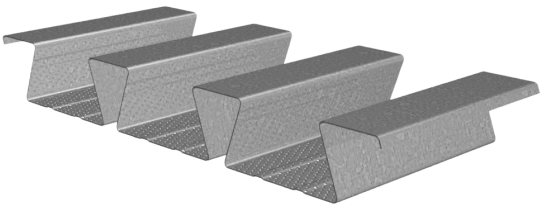
Notes:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

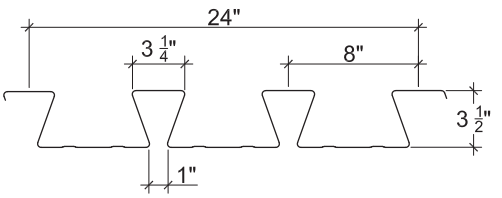
3.5DS-24 AC ACOUSTICAL DOVETAIL ROOF DECK
GRADE 50 STEEL

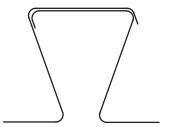
3.5DS-24 AC DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
20	3.2	0.0359	50	1.687	1.646	0.674	0.665	2528	2494	5706
18	4.2	0.0478	50	2.313	2.321	0.982	0.999	3682	3746	10356
16	5.3	0.0598	50	2.942	3.040	1.322	1.380	4959	5175	14868

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"
20	1315	1507	1669	1812	2580	2953	1301	1450	1576	1687	3044	3515
18	2241	2553	2815	3046	4363	4960	2435	2695	2915	3108	5269	6048
16	3392	3843	4223	4557	6567	7425	3924	4319	4652	4945	8048	9192

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423 and FM Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -19 or 17 gage
  - -Alternative metallic and painted finishes

3.5DS-24 AC ACOUSTICAL DOVETAIL ROOF DECK
GRADE 50 STEEL

Inward Uniform Design Loads, LRFD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.) 11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"
20	Single	ϕW_n	167	140	120	103	90	79	70	62	56	51	46
		L/240	83	64	50	40	33	27	23	19	16	14	12
	Double	ϕW_n	162	136	116	101	88	77	68	61	55	50	
		L/240	195	150	118	95	77	63	53	45	38	32	
	Triple	ϕW_n	200	169	145								
		L/240	153	118	93								
18	Single	ϕW_n	243	205	174	150	131	115	102	91	82	74	67
		L/240	114	88	69	55	45	37	31	26	22	19	16
	Double	ϕW_n	244	206	176	152	132	116	103	92	83	75	
		L/240	275	212	167	134	109	89	75	63	53	46	
	Triple	ϕW_n	304	256	219								
		L/240	216	166	131								
16	Single	ϕW_n	328	276	235	202	176	155	137	122	110	99	90
		L/240	145	112	88	70	57	47	39	33	28	24	21
	Double	ϕW_n	338	285	243	210	183	161	143	127	114	103	
		L/240	361	278	219	175	142	117	98	82	70	60	
	Triple	ϕW_n	420	354	302								
		L/240	283	218	171								

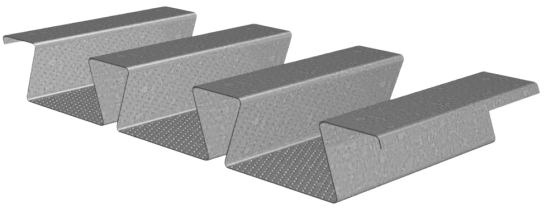
Notes:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

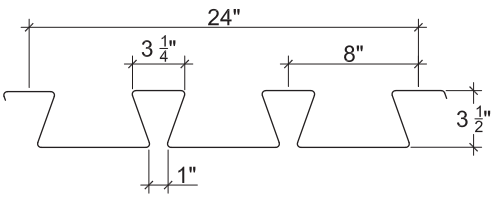
3.5DF-24 AC ACOUSTICAL DOVETAIL ROOF DECK
GRADE 50 STEEL

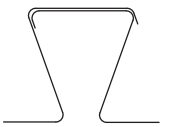
3.5DF-24 AC DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
18	4.2	0.0478	50	2.318	2.268	0.984	0.834	3691	3128	10356
16	5.3	0.0598	50	2.948	2.947	1.325	1.144	4971	4291	14868

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"
18	2241	2553	2815	3046	4363	4960	2435	2695	2915	3108	5269	6048
16	3392	3843	4223	4557	6567	7425	3924	4319	4652	4945	8048	9192

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423 and FM Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -17 gage
  - -Alternative metallic and painted finishes

Inward Uniform Design Loads, LRFD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.) 11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"
18	Single	$øW_n$	244	205	175	151	131	115	102	91	82	74	67
		L/240	114	88	69	55	45	37	31	26	22	19	16
	Double	$øW_n$	205	172	147	127	111	97	86	77	69	62	
		L/240	269	207	163	131	106	87	73	61	52	45	
	Triple	$øW_n$	255	215	183								
		L/240	211	162	128								
16	Single	$øW_n$	329	276	235	203	177	155	138	123	110	99	90
		L/240	145	112	88	70	57	47	39	33	28	24	21
	Double	$øW_n$	281	237	202	174	152	134	118	106	95	86	
		L/240	350	269	212	170	138	114	95	80	68	58	
	Triple	$øW_n$	350	295	252								
		L/240	274	211	166								

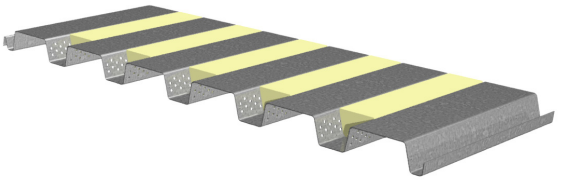
Notes:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

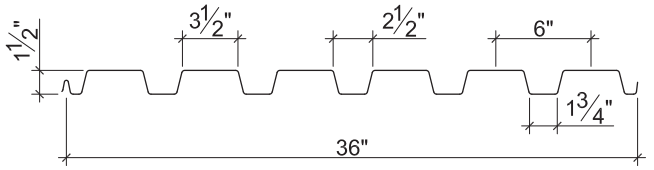
PLB™-36/HSB®-36 ACOUSTICAL ROOF DECKS
GRADE 50 STEEL

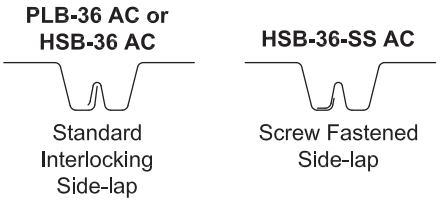
B ACOUSTICAL ROOF DECKS

- **PLB-36 AC Deck used with PunchLok® II System**
- **HSB-36 AC Deck used with TSWs or BPs**
- **HSB-36-SS AC Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øV$_n$ (lb/ft)
22	1.9	0.0299	50	0.173	0.187	0.170	0.182	3395
20	2.3	0.0359	50	0.213	0.225	0.223	0.230	4067
18	2.9	0.0478	50	0.294	0.298	0.306	0.322	5381
16	3.5	0.0598	50	0.371	0.371	0.388	0.399	6686

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"
22	1277	1403	1615	1746	2312	2478	1321	1423	1594	1699	2835	3053
20	1788	1958	2245	2421	3249	3471	1955	2098	2339	2487	4029	4327
18	3019	3291	3748	4023	5513	5863	3564	3806	4213	4457	6934	7412
16	4542	4933	5588	5974	8321	8813	5652	6013	6617	6973	10554	11236

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. with gray primer
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 and FM Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Fully Perforated Acoustical Versions
- HSB-30-NS AC Deck used with Side-lap screws

Inward Uniform Design Loads, LRFD (psf)

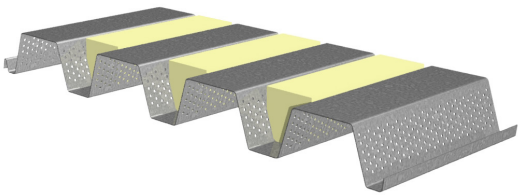
Deck Gage	Spans	Criteria	Span (ft-in.) 2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	øW$_n$	1274	566	319	204	142	104	80	63	51	42	35
		L/240	1418	420	177	91	53	33	22	16	11	9	7
	Double	øW$_n$	1219	575	331	214	150	110	85	67	54	45	38
		L/240	3691	1094	461	236	137	86	58	41	30	22	17
	Triple	øW$_n$	1461	703	408	265	186	137	105	83	68	56	47
		L/240	2893	857	362	185	107	67	45	32	23	17	13
20	Single	øW$_n$	1672	743	418	268	186	137	105	83	67	55	46
		L/240	1745	517	218	112	65	41	27	19	14	10	8
	Double	øW$_n$	1524	723	417	270	189	139	107	85	69	57	48
		L/240	4441	1316	555	284	164	104	69	49	36	27	21
	Triple	øW$_n$	1819	882	514	334	234	173	133	105	86	71	60
		L/240	3481	1031	435	223	129	81	54	38	28	21	16
18	Single	øW$_n$	2295	1020	574	367	255	187	143	113	92	76	64
		L/240	2409	714	301	154	89	56	38	26	19	14	11
	Double	øW$_n$	2107	1006	581	377	264	195	150	118	96	79	67
		L/240	5882	1743	735	376	218	137	92	65	47	35	27
	Triple	øW$_n$	2505	1224	715	466	327	242	186	147	120	99	83
		L/240	4610	1366	576	295	171	108	72	51	37	28	21
16	Single	øW$_n$	2911	1294	728	466	323	238	182	144	116	96	81
		L/240	3040	901	380	195	113	71	48	33	24	18	14
	Double	øW$_n$	2612	1246	721	467	327	241	185	147	119	98	83
		L/240	7323	2170	915	469	271	171	114	80	59	44	34
	Triple	øW$_n$	3106	1518	887	578	406	300	231	183	148	123	103
		L/240	5740	1701	717	367	213	134	90	63	46	34	27

Note:

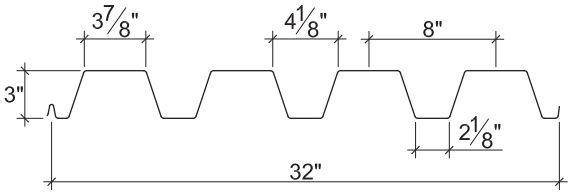
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.

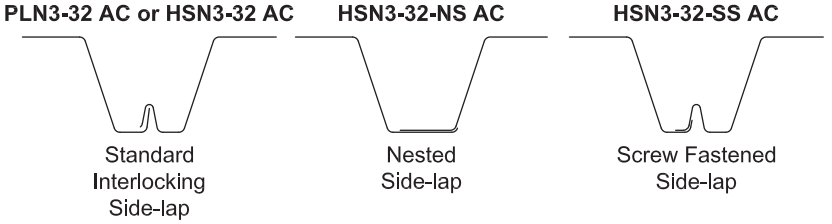
N3 ACOUSTICAL ROOF DECKS

- **PLN3-32 AC Deck used with PunchLok® II System**
- **HSN3-32 AC Deck used with TSWs or BPs**
- **HSN3-32-NS AC Deck used with Side-lap Screws**
- **HSN3-32-SS AC Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øV$_n$ (lb/ft)
22	2.0	0.0299	50	0.674	0.737	0.321	0.374	2890
20	2.4	0.0359	50	0.833	0.894	0.414	0.471	4742
18	3.1	0.0478	50	1.154	1.195	0.620	0.672	8399
16	3.9	0.0598	50	1.475	1.491	0.821	0.870	11206

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
22	829	911	1049	1165	1835	2143	763	822	921	1004	2096	2472
20	1176	1289	1477	1636	2574	3190	1165	1251	1395	1516	2999	3769
18	2024	2207	2513	2771	4358	5457	2211	2361	2614	2826	5209	6628
16	3083	3348	3793	4168	6566	8148	3595	3824	4208	4533	7971	10058

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. with gray primer
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 and FM Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Fully Perforated Acoustical Versions

Inward Uniform Design Loads, LRFD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	6'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
22	Single	ϕW_n	602	268	151	119	96	80	67	49	38	30	24
		L/240	690	205	86	61	44	33	26	16	11	8	6
	Double	ϕW_n	599	289	168	134	109	91	76	56	43	34	28
		L/240	1818	539	227	160	116	87	67	42	28	20	15
	Triple	ϕW_n	709	350	206	165	135	112	95	70			
		L/240	1425	422	178	125	91	69	53	33			
20	Single	ϕW_n	776	345	194	153	124	103	86	63	49	38	31
		L/240	853	253	107	75	55	41	32	20	13	9	7
	Double	ϕW_n	801	375	215	171	139	115	97	71	55	43	35
		L/240	2206	654	276	194	141	106	82	51	34	24	18
	Triple	ϕW_n	964	460	266	212	172	143	121	89			
		L/240	1729	512	216	152	111	83	64	40			
18	Single	ϕW_n	1162	517	291	230	186	154	129	95	73	57	46
		L/240	1182	350	148	104	76	57	44	28	18	13	9
	Double	ϕW_n	1180	543	310	246	199	165	139	102	78	62	50
		L/240	2949	874	369	259	189	142	109	69	46	32	24
	Triple	ϕW_n	1436	670	384	305	248	206	173	128			
		L/240	2311	685	289	203	148	111	86	54			
16	Single	ϕW_n	1539	684	385	304	246	204	171	126	96	76	62
		L/240	1511	448	189	133	97	73	56	35	24	17	12
	Double	ϕW_n	1533	705	401	318	258	214	180	132	102	80	65
		L/240	3679	1090	460	323	235	177	136	86	57	40	29
	Triple	ϕW_n	1869	870	498	395	321	266	224	165			
		L/240	2883	854	360	253	185	139	107	67			

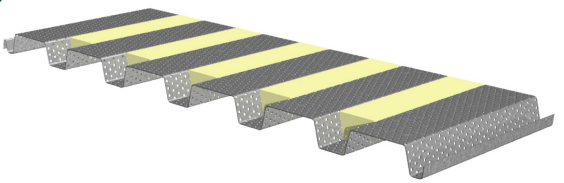
Note:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.

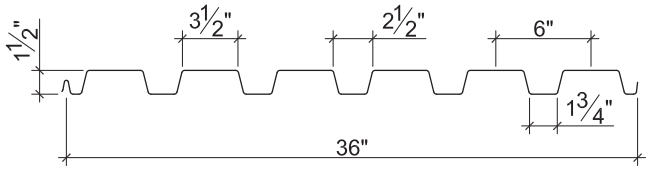
PLB™-36/HSB®-36 FULLY PERFED ROOF DECKS
GRADE 50 STEEL

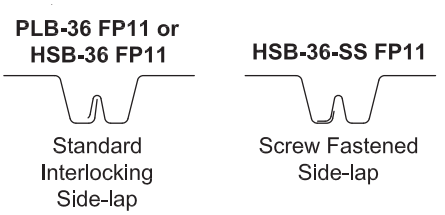
11% OPEN FULLY PERFORATED B ROOF DECKS

- **PLB-36 FP11 Deck used with PunchLok® II System**
- **HSB-36 FP11 Deck used with TSWs or BPs**
- **HSB-36-SS FP11 Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear $øV_n$ (lb/ft)
22	1.7	0.0299	50	0.141	0.145	0.098	0.105	3026
20	2.0	0.0359	50	0.173	0.175	0.128	0.132	3625
18	2.6	0.0478	50	0.231	0.231	0.175	0.185	4800
16	3.1	0.0598	50	0.287	0.287	0.223	0.229	5969

Design Reactions at Supports Based on Web Crippling, $øR_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"
22	1261	1386	1595	1725	2308	2474	1291	1390	1557	1660	2808	3024
20	1768	1936	2220	2394	3244	3466	1915	2056	2292	2437	3994	4290
18	2991	3261	3713	3986	5506	5855	3505	3743	4143	4383	6884	7358
16	4505	4893	5543	5926	8311	8802	5572	5927	6523	6874	10487	11165

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. with gray primer
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Web Perforated Acoustical Versions
- HSB-30-NS FP11 Deck used with Side-lap screws

Inward Uniform Design Loads, LRFD (psf) FP11

Deck Gage	Spans	Criteria	Span (ft-in.) 2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	$øW_n$	734	326	184	118	82	60	46	36	29	24	20
		L/240	1155	342	144	74	43	27	18	13	9	7	5
	Double	$øW_n$	750	342	195	125	87	64	49	39	31	26	22
		L/240	2862	848	358	183	106	67	45	31	23	17	13
	Triple	$øW_n$	918	424	242	156	109	80	61	48	39	32	27
		L/240	2243	665	280	144	83	52	35	25	18	13	10
20	Single	$øW_n$	959	426	240	154	107	78	60	47	38	32	27
		L/240	1418	420	177	91	53	33	22	16	11	9	7
	Double	$øW_n$	937	429	244	157	109	80	62	49	40	33	27
		L/240	3454	1024	432	221	128	81	54	38	28	21	16
	Triple	$øW_n$	1145	531	303	195	136	100	77	61	49	41	34
		L/240	2707	802	338	173	100	63	42	30	22	16	13
18	Single	$øW_n$	1312	583	328	210	146	107	82	65	52	43	36
		L/240	1893	561	237	121	70	44	30	21	15	11	9
	Double	$øW_n$	1305	600	341	220	153	113	86	68	55	46	38
		L/240	4560	1351	570	292	169	106	71	50	36	27	21
	Triple	$øW_n$	1592	741	424	273	191	141	108	85	69	57	48
		L/240	3574	1059	447	229	132	83	56	39	29	21	17
16	Single	$øW_n$	1672	743	418	268	186	137	105	83	67	55	46
		L/240	2352	697	294	151	87	55	37	26	19	14	11
	Double	$øW_n$	1616	742	423	272	189	139	107	85	69	57	48
		L/240	5665	1679	708	363	210	132	89	62	45	34	26
	Triple	$øW_n$	1971	917	525	338	236	174	133	106	86	71	59
		L/240	4440	1316	555	284	164	104	69	49	36	27	21

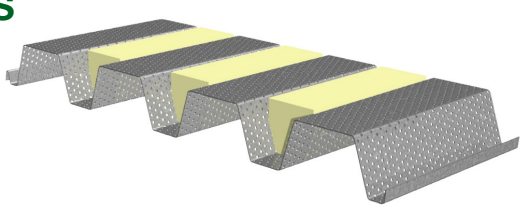
Note:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.

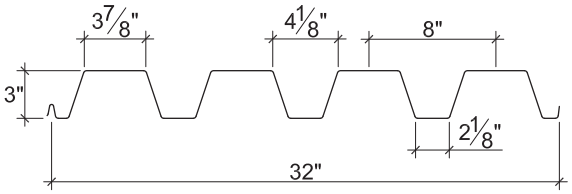
PLN3™-32/HSN3™-32 FULLY PERFED ROOF DECKS
GRADE 50 STEEL

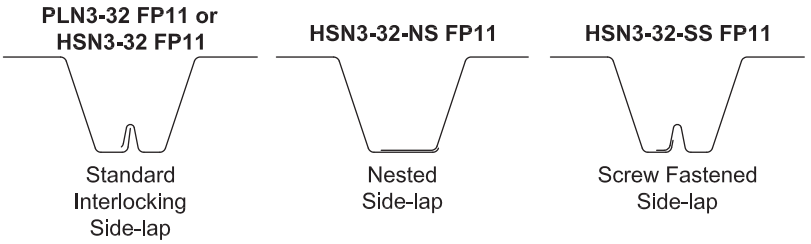
11% OPEN FULLY PERFORATED N3 ROOF DECKS

- **PLN3-32 FP11 Deck used with PunchLok® II System**
- **HSN3-32 FP11 Deck used with TSWs or BPs**
- **HSN3-32-NS FP11 Deck used with Side-lap Screws**
- **HSN3-32-SS FP11 Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear $øV_n$ (lb/ft)
22	1.8	0.0299	50	0.577	0.603	0.197	0.226	2642
20	2.1	0.0359	50	0.706	0.724	0.252	0.284	4336
18	2.8	0.0478	50	0.958	0.961	0.374	0.403	7682
16	3.5	0.0598	50	1.199	1.199	0.493	0.520	10253

Design Reactions at Supports Based on Web Crippling, $øR_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
22	815	896	1031	1145	1831	2138	737	794	889	969	2070	2441
20	1159	1270	1455	1612	2569	3184	1131	1214	1353	1471	2965	3727
18	1999	2179	2482	2737	4352	5449	2159	2306	2552	2760	5160	6566
16	3050	3312	3752	4123	6557	8136	3523	3748	4125	4443	7907	9977

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. with gray primer
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Web Perforated Acoustical Versions

Inward Uniform Design Loads, LRFD (psf) FP11

Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	6'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
22	Single	$øW_n$	369	164	92	73	59	49	41	30	23	18	15
		L/240	591	175	74	52	38	28	22	14	9	6	5
	Double	$øW_n$	393	182	104	82	67	55	47	34	26	21	17
		L/240	1488	441	186	131	95	72	55	35	23	16	12
	Triple	$øW_n$	477	224	129	102	83	69	58	43			
		L/240	1166	346	146	102	75	56	43	27			
20	Single	$øW_n$	473	210	118	93	76	62	53	39	30	23	19
		L/240	723	214	90	63	46	35	27	17	11	8	6
	Double	$øW_n$	509	232	132	104	85	70	59	43	33	26	21
		L/240	1786	529	223	157	114	86	66	42	28	20	14
	Triple	$øW_n$	624	287	164	130	105	87	73	54			
		L/240	1400	415	175	123	90	67	52	33			
18	Single	$øW_n$	701	312	175	138	112	93	78	57	44	35	28
		L/240	981	291	123	86	63	47	36	23	15	11	8
	Double	$øW_n$	734	331	187	148	120	100	84	62	47	37	30
		L/240	2371	703	296	208	152	114	88	55	37	26	19
	Triple	$øW_n$	906	412	234	185	150	124	104	77			
		L/240	1858	551	232	163	119	89	69	43			
16	Single	$øW_n$	924	411	231	183	148	122	103	75	58	46	37
		L/240	1228	364	154	108	79	59	45	29	19	13	10
	Double	$øW_n$	949	428	242	192	155	128	108	79	61	48	39
		L/240	2958	877	370	260	189	142	110	69	46	32	24
	Triple	$øW_n$	1172	532	302	239	194	160	135	99			
		L/240	2319	687	290	204	148	111	86	54			

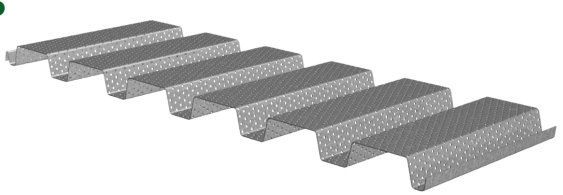
Note:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.

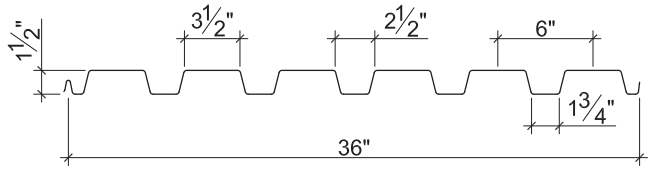
PLB™-36/HSB®-36 FULLY PERFED ROOF DECKS
GRADE 50 STEEL

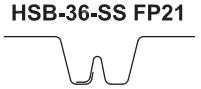
21% OPEN FULLY PERFORATED B ROOF DECKS

- **PLB-36 FP21 Deck used with PunchLok® II System**
- **HSB-36 FP21 Deck used with TSWs or BPs**
- **HSB-36-SS FP21 Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øV$_n$ (lb/ft)
22	1.5	0.0299	50	0.118	0.120	0.078	0.083	2246
20	1.8	0.0359	50	0.143	0.143	0.102	0.105	2691
18	2.3	0.0478	50	0.190	0.190	0.139	0.147	3563
16	2.8	0.0598	50	0.236	0.236	0.177	0.182	4432

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"
22	1215	1335	1537	1662	2297	2461	1203	1296	1452	1548	2730	2940
20	1710	1873	2147	2316	3229	3451	1801	1934	2156	2292	3894	4182
18	2908	3171	3611	3876	5485	5833	3333	3560	3940	4168	6737	7202
16	4397	4775	5409	5783	8283	8772	5336	5676	6247	6583	10291	10957

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. with gray primer
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Acoustical Insulation
- Web Perforated Acoustical Versions
- HSB-30-NS FP21 Deck used with Side-lap screws

Inward Uniform Design Loads, LRFD (psf) FP21

Deck Gage	Spans	Criteria	Span (ft-in.) 2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	$øW_n$	585	260	146	94	65	48	37	29	23	19	16
		L/240	967	287	121	62	36	23	15	11	8	6	4
	Double	$øW_n$	588	270	153	99	69	51	39	31	25	21	17
		L/240	2369	702	296	152	88	55	37	26	19	14	11
	Triple	$øW_n$	719	333	191	123	86	63	48	38	31	26	22
		L/240	1857	550	232	119	69	43	29	20	15	11	9
20	Single	$øW_n$	765	340	191	122	85	62	48	38	31	25	21
		L/240	1172	347	146	75	43	27	18	13	9	7	5
	Double	$øW_n$	740	340	194	125	87	64	49	39	31	26	22
		L/240	2823	836	353	181	105	66	44	31	23	17	13
	Triple	$øW_n$	902	420	241	155	108	80	61	48	39	32	27
		L/240	2212	656	277	142	82	52	35	24	18	13	10
18	Single	$øW_n$	1042	463	261	167	116	85	65	51	42	34	29
		L/240	1557	461	195	100	58	36	24	17	12	9	7
	Double	$øW_n$	1029	475	271	174	122	90	69	54	44	36	31
		L/240	3750	1111	469	240	139	87	59	41	30	23	17
	Triple	$øW_n$	1251	586	336	217	151	112	86	68	55	45	38
		L/240	2940	871	367	188	109	69	46	32	24	18	14
16	Single	$øW_n$	1328	590	332	213	148	108	83	66	53	44	37
		L/240	1934	573	242	124	72	45	30	21	15	12	9
	Double	$øW_n$	1273	587	335	216	150	111	85	67	54	45	38
		L/240	4658	1380	582	298	173	109	73	51	37	28	22
	Triple	$øW_n$	1548	724	415	268	187	138	106	84	68	56	47
		L/240	3651	1082	456	234	135	85	57	40	29	22	17

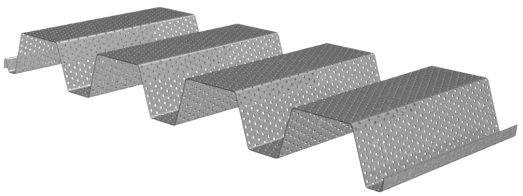
Note:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.

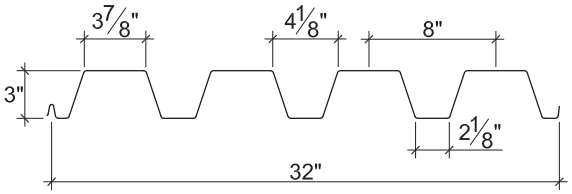
PLN3™-32/HSN3™-32 FULLY PERFED ROOF DECKS
GRADE 50 STEEL

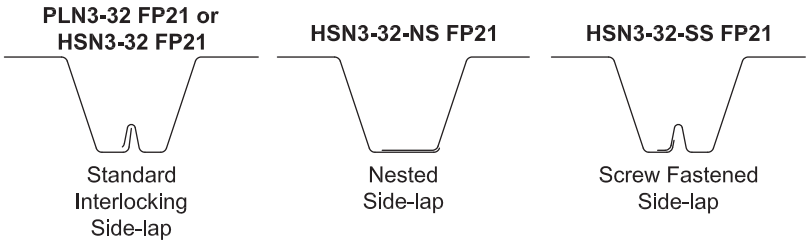
21% OPEN FULLY PERFORATED N3 ROOF DECK

- **PLN3-32 FP21 Deck used with PunchLok® II System**
- **HSN3-32 FP21 Deck used with TSWs or BPs**
- **HSN3-32-NS FP21 Deck used with Side-lap Screws**
- **HSN3-32-SS FP21 Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øV$_n$ (lb/ft)
22	1.6	0.0299	50	0.483	0.496	0.156	0.180	1961
20	1.9	0.0359	50	0.588	0.595	0.200	0.225	3219
18	2.4	0.0478	50	0.789	0.789	0.297	0.320	5703
16	3.1	0.0598	50	0.984	0.984	0.391	0.413	7611

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
22	764	839	966	1073	1817	2122	639	688	771	840	1973	2326
20	1094	1199	1374	1522	2551	3162	1003	1077	1200	1305	2842	3572
18	1907	2079	2368	2611	4326	5416	1966	2100	2324	2513	4980	6337
16	2928	3180	3602	3959	6522	8093	3258	3466	3814	4108	7666	9673

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. with gray primer
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Acoustical Insulation
- Web Perforated Acoustical Versions

Inward Uniform Design Loads, LRFD (psf) FP21

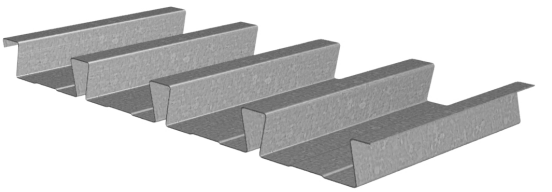
Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	6'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
22	Single	$øW_n$	293	130	73	58	47	39	33	24	18	14	12
		L/240	495	147	62	43	32	24	18	12	8	5	4
	Double	$øW_n$	310	144	82	65	53	44	37	27	21	17	13
		L/240	1224	363	153	107	78	59	45	29	19	13	10
	Triple	$øW_n$	375	177	102	81	66	55	46	34			
		L/240	959	284	120	84	61	46	36	22			
20	Single	$øW_n$	375	167	94	74	60	50	42	31	23	19	15
		L/240	602	178	75	53	39	29	22	14	9	7	5
	Double	$øW_n$	401	183	104	83	67	55	47	34	26	21	17
		L/240	1468	435	184	129	94	71	54	34	23	16	12
	Triple	$øW_n$	491	227	129	103	83	69	58	43			
		L/240	1151	341	144	101	74	55	43	27			
18	Single	$øW_n$	557	248	139	110	89	74	62	45	35	28	22
		L/240	808	239	101	71	52	39	30	19	13	9	6
	Double	$øW_n$	580	263	149	118	95	79	66	49	37	30	24
		L/240	1947	577	243	171	125	94	72	45	30	21	16
	Triple	$øW_n$	715	326	185	147	119	99	83	61			
		L/240	1526	452	191	134	98	73	57	36			
16	Single	$øW_n$	733	326	183	145	117	97	81	60	46	36	29
		L/240	1008	299	126	88	65	48	37	24	16	11	8
	Double	$øW_n$	751	339	192	152	123	102	86	63	48	38	31
		L/240	2428	719	303	213	155	117	90	57	38	27	19
	Triple	$øW_n$	926	422	239	189	154	127	107	79			
		L/240	1903	564	238	167	122	92	70	44			

Note:

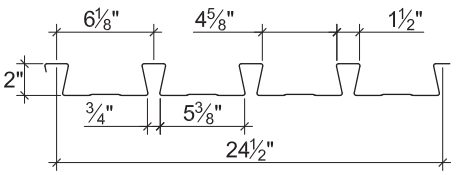
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.

2.0D DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions



Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 40 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Allowable Moment M_n+/Ω (lb-ft/ft)	M_n-/Ω (lb-ft/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	2.1	0.0295	40	0.387	0.359	0.272	0.272	543	543	2896
20	2.6	0.0358	40	0.472	0.447	0.343	0.334	684	666	3498
18	3.4	0.0474	40	0.626	0.612	0.463	0.450	924	898	4584
16	4.3	0.0598	40	0.792	0.791	0.587	0.576	1172	1150	5723

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"
22	653	717	826	917	1281	1516	702	757	848	925	1567	1877
20	931	1020	1170	1296	1823	2146	1058	1136	1266	1376	2258	2690
18	1556	1697	1933	2132	3036	3544	1893	2023	2239	2422	3813	4507
16	2378	2582	2926	3215	4629	5360	3043	3237	3563	3837	5866	6880

Standard Features

- ASTM A653 SS GR 40 Min. with G90
- Standard lengths – 6'-0" to 42'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423, FM and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -19 gage
  - -Short cuts < 6'-0"
  - -Alternative metallic and painted finishes
- Acoustical Version

Inward Uniform Allowable Loads, ASD (psf)

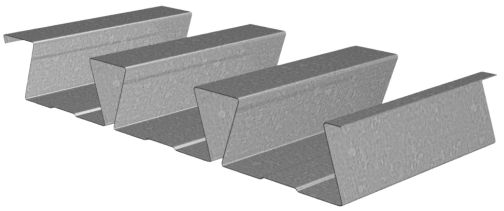
Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
22	Single	W_n / Ω	272	174	121	89	68	54	43	36	30	26	22
		L/240	---	---	117	74	50	35	25	19	15	12	9
	Double	W_n / Ω	264	171	119	88	67	53	43	36	30	26	22
		L/240	---	---	---	---	---	---	---	---	---	---	21
	Triple	W_n / Ω	327	212	148	109	84	67	54	45	38	32	28
		L/240	---	---	---	---	---	61	44	33	26	20	16
20	Single	W_n / Ω	342	219	152	112	86	68	55	45	38	32	28
		L/240	---	---	143	90	60	42	31	23	18	14	11
	Double	W_n / Ω	324	209	146	108	83	65	53	44	37	31	27
		L/240	---	---	---	---	---	---	---	---	---	---	26
	Triple	W_n / Ω	401	260	182	134	103	82	66	55	46	39	34
		L/240	---	---	---	---	---	76	55	42	32	25	20
18	Single	W_n / Ω	462	296	205	151	115	91	74	61	51	44	38
		L/240	---	---	190	120	80	56	41	31	24	19	15
	Double	W_n / Ω	436	282	197	145	111	88	72	59	50	42	37
		L/240	---	---	---	---	---	---	---	---	---	---	35
	Triple	W_n / Ω	539	350	245	181	139	110	89	74	62	53	46
		L/240	---	---	---	---	---	104	76	57	44	34	28
16	Single	W_n / Ω	586	375	260	191	146	116	94	77	65	55	48
		L/240	---	---	240	151	101	71	52	39	30	24	19
	Double	W_n / Ω	558	361	252	186	143	113	92	76	64	54	47
		L/240	---	---	---	---	---	---	---	---	---	---	46
	Triple	W_n / Ω	688	447	313	231	178	141	114	94	79	68	58
		L/240	---	---	---	---	---	134	98	74	57	45	36

Notes:

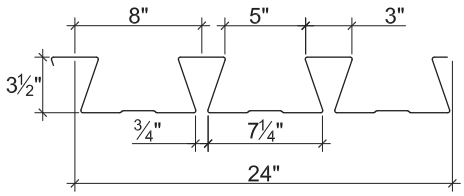
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

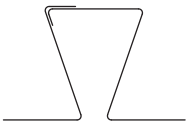
3.5D DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 40 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Allowable Moment M_n+/Ω (lb-ft/ft)	M_n-/Ω (lb-ft/ft)	Vertical Web Shear V_n/Ω (lb/ft)
20	3.3	0.0358	40	1.762	1.646	0.676	0.781	1349	1559	3435
18	4.3	0.0474	40	2.415	2.272	0.980	1.070	1956	2136	6012
16	5.4	0.0598	40	3.133	2.968	1.317	1.377	2629	2749	8313

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"
20	693	794	880	955	1459	1670	714	796	865	926	1724	1991
18	1168	1330	1467	1588	2422	2753	1310	1450	1568	1672	2927	3360
16	1793	2032	2233	2410	3681	4162	2137	2352	2533	2693	4515	5157

Standard Features

- ASTM A653 SS GR 40 Min. with G90
- Standard lengths – 6'-0" to 42'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423, FM and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -19 gage
  - -Short cuts < 6'-0"
  - -Alternative metallic and painted finishes
- Acoustical Version

Inward Uniform Allowable Loads, ASD (psf)

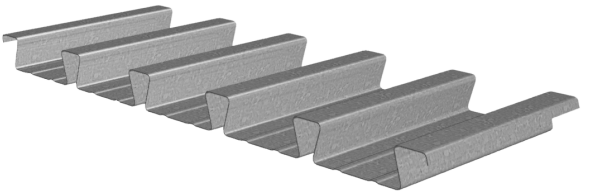
Deck Gage	Spans	Criteria	Span (ft-in.) 11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"
20	Single	W_n / Ω	89	75	64	55	48	42	37	33	30	27	24
		L/240	87	67	53	42	34	28	24	20	17	14	12
	Double	W_n / Ω	101	85	73	63	55	48	43	38	34	31	28
		L/240	---	---	---	---	---	---	---	---	---	---	28
	Triple	W_n / Ω	125	106	90	78							
		L/240	---	---	---	74							
18	Single	W_n / Ω	129	109	93	80	70	61	54	48	43	39	35
		L/240	119	92	72	58	47	39	32	27	23	20	17
	Double	W_n / Ω	139	117	100	86	75	66	59	52	47	43	39
		L/240	---	---	---	---	---	---	---	---	---	---	---
	Triple	W_n / Ω	173	146	125	108							
		L/240	---	---	---	102							
16	Single	W_n / Ω	174	146	124	107	93	82	73	65	58	53	48
		L/240	154	119	93	75	61	50	42	35	30	26	22
	Double	W_n / Ω	180	151	129	111	97	85	76	68	61	55	50
		L/240	---	---	---	---	---	---	---	---	---	---	---
	Triple	W_n / Ω	224	188	161	139							
		L/240	---	---	---	134							

Notes:

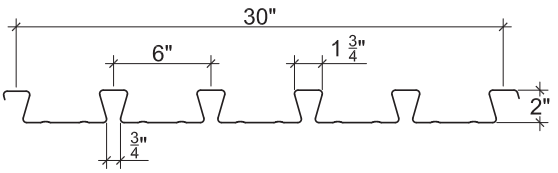
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

2.0DS-30 DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions



Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Allowable Moment M_n+/Ω (lb-ft/ft)	M_n-/Ω (lb-ft/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	2.2	0.0299	50	0.430	0.382	0.301	0.306	752	763	3334
20	2.7	0.0359	50	0.520	0.473	0.378	0.373	943	930	3978
18	3.6	0.0478	50	0.695	0.661	0.527	0.509	1315	1269	5229
16	4.5	0.0598	50	0.872	0.856	0.667	0.648	1664	1617	6455

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"
22	833	916	1054	1171	1557	1794	859	926	1037	1130	1905	2217
20	1166	1278	1465	1622	2186	2503	1272	1366	1523	1655	2706	3130
18	1970	2148	2446	2698	3707	4201	2322	2480	2745	2968	4656	5331
16	2964	3218	3646	4007	5590	6279	3684	3919	4313	4646	7085	8040

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423, FM and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -21, 19 or 17 gage
  - -Alternative metallic and painted finishes
- Acoustical Version

Inward Uniform Allowable Loads, ASD (psf)

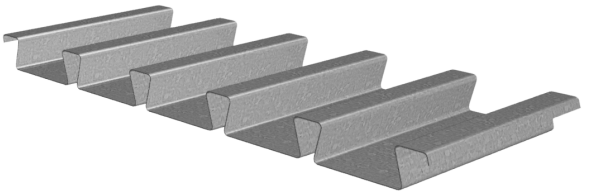
Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
22	Single	W_n / Ω	376	241	167	123	94	74	60	50	42	36	31
		L/240	---	226	131	82	55	39	28	21	16	13	10
	Double	W_n / Ω	367	238	166	123	94	75	61	50	42	36	31
		L/240	---	---	---	---	---	---	60	45	35	27	22
	Triple	W_n / Ω	451	294	206	153	117	93	76	63	53	45	
		L/240	---	---	---	138	92	65	47	36	27	22	
20	Single	W_n / Ω	471	302	209	154	118	93	75	62	52	45	38
		L/240	---	273	158	99	67	47	34	26	20	16	12
	Double	W_n / Ω	446	290	203	150	115	91	74	61	51	44	38
		L/240	---	---	---	---	---	---	---	56	43	34	27
	Triple	W_n / Ω	548	358	252	186	143	113	92	76	64	55	
		L/240	---	---	---	171	114	80	59	44	34	27	
18	Single	W_n / Ω	658	421	292	215	164	130	105	87	73	62	54
		L/240	---	364	211	133	89	62	46	34	26	21	17
	Double	W_n / Ω	607	395	276	204	157	124	101	83	70	60	52
		L/240	---	---	---	---	---	---	---	78	60	48	38
	Triple	W_n / Ω	745	487	343	254	195	155	126	104	87	75	
		L/240	---	---	---	239	160	112	82	61	47	37	
16	Single	W_n / Ω	832	532	370	272	208	164	133	110	92	79	68
		L/240	---	457	265	167	112	78	57	43	33	26	21
	Double	W_n / Ω	772	502	352	260	200	158	128	106	89	76	66
		L/240	---	---	---	---	---	---	---	102	78	62	49
	Triple	W_n / Ω	946	619	436	323	248	197	160	132	111	95	
		L/240	---	---	---	309	207	145	106	80	61	48	

Notes:

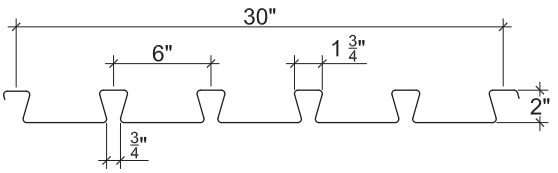
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

2.0DF-30 DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions



Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Allowable Moment M_n+/Ω (lb-ft/ft)	M_n-/Ω (lb-ft/ft)	Vertical Web Shear V_n/Ω (lb/ft)
20	2.7	0.0359	50	0.524	0.468	0.380	0.344	947	859	3978
18	3.6	0.0478	50	0.699	0.660	0.530	0.491	1322	1225	5229
16	4.5	0.0598	50	0.877	0.857	0.670	0.632	1673	1576	6455

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"
20	1166	1278	1465	1622	2186	2503	1272	1366	1523	1655	2706	3130
18	1970	2148	2446	2698	3707	4201	2322	2480	2745	2968	4656	5331
16	2964	3218	3646	4007	5590	6279	3684	3919	4313	4646	7085	8040

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423, FM and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -22, 21, 19 or 17 gage
  - -Alternative metallic and painted finishes
- Acoustical Version

Inward Uniform Allowable Loads, ASD (psf)

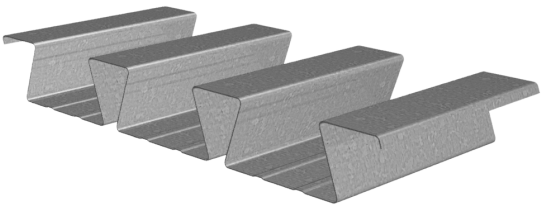
Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
20	Single	W_n / Ω	474	303	211	155	118	94	76	63	53	45	39
		L/240	---	275	159	100	67	47	34	26	20	16	13
	Double	W_n / Ω	415	269	188	139	106	84	68	57	48	41	35
		L/240	---	---	---	---	---	---	---	56	43	34	27
	Triple	W_n / Ω	511	333	233	172	132	105	85	70	59	51	
		L/240	---	---	---	169	113	79	58	44	34	26	
18	Single	W_n / Ω	661	423	294	216	165	131	106	87	73	63	54
		L/240	---	367	212	134	89	63	46	34	27	21	17
	Double	W_n / Ω	588	382	267	197	151	120	97	81	68	58	50
		L/240	---	---	---	---	---	---	---	78	60	47	38
	Triple	W_n / Ω	722	472	331	245	189	149	121	100	84	72	
		L/240	---	---	---	238	160	112	82	61	47	37	
16	Single	W_n / Ω	836	535	372	273	209	165	134	111	93	79	68
		L/240	---	460	266	168	112	79	57	43	33	26	21
	Double	W_n / Ω	754	490	343	253	195	154	125	104	87	74	64
		L/240	---	---	---	---	---	---	---	102	78	62	49
	Triple	W_n / Ω	925	605	425	315	242	192	156	129	109	93	
		L/240	---	---	---	309	207	146	106	80	61	48	

Notes:

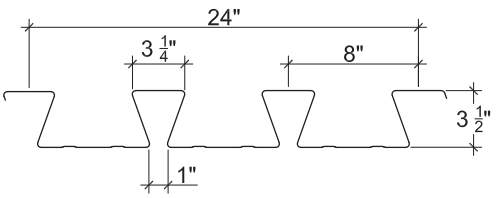
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

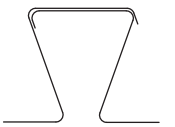
3.5DS-24 DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions





Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Allowable Moment M_n+/Ω (lb-ft/ft)	M_n-/Ω (lb-ft/ft)	Vertical Web Shear V_n/Ω (lb/ft)
20	3.4	0.0359	50	1.951	1.805	0.714	0.757	1781	1889	3754
18	4.5	0.0478	50	2.681	2.505	1.052	1.108	2626	2765	6813
16	5.6	0.0598	50	3.421	3.243	1.414	1.505	3527	3756	9781

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"
20	859	985	1091	1184	1735	1985	850	948	1030	1103	2046	2363
18	1465	1668	1840	1991	2933	3334	1592	1762	1905	2031	3542	4066
16	2217	2512	2760	2979	4415	4992	2565	2823	3040	3232	5411	6179

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423, FM and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -19 or 17 gage
  - -Alternative metallic and painted finishes
- Acoustical Version

Inward Uniform Allowable Loads, ASD (psf)

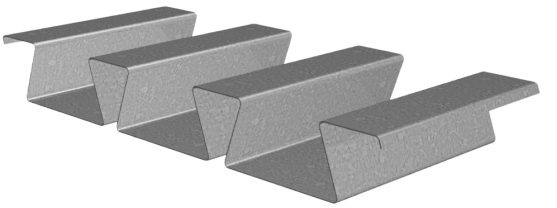
Deck Gage	Spans	Criteria	Span (ft-in.) 11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"
20	Single	W_n / Ω	118	99	84	73	63	56	49	44	39	36	32
		L/240	96	74	58	47	38	31	26	22	19	16	14
	Double	W_n / Ω	122	103	88	76	66	58	52	46	42	37	
		L/240	---	---	---	---	---	---	---	---	---	36	
	Triple	W_n / Ω	151	127	109								
		L/240	---	---	102								
18	Single	W_n / Ω	174	146	124	107	93	82	73	65	58	53	48
		L/240	132	102	80	64	52	43	36	30	26	22	19
	Double	W_n / Ω	180	151	129	112	97	86	76	68	61	55	
		L/240	---	---	---	---	---	---	---	68	58	49	
	Triple	W_n / Ω	223	188	161								
		L/240	---	179	141								
16	Single	W_n / Ω	233	196	167	144	125	110	98	87	78	71	64
		L/240	168	130	102	82	66	55	46	38	33	28	24
	Double	W_n / Ω	245	206	176	152	132	117	103	92	83	75	
		L/240	---	---	---	---	---	---	---	88	75	64	
	Triple	W_n / Ω	304	256	219								
		L/240	302	232	183								

Notes:

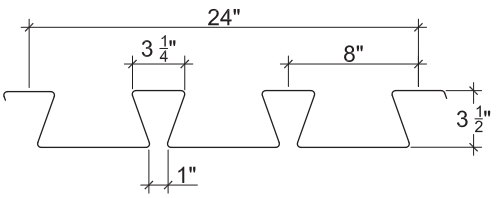
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

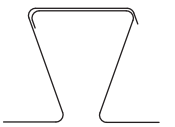
3.5DF-24 DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions





Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Allowable Moment M_n+/Ω (lb-ft/ft)	M_n-/Ω (lb-ft/ft)	Vertical Web Shear V_n/Ω (lb/ft)
18	4.5	0.0478	50	2.688	2.496	1.055	0.935	2633	2333	6813
16	5.6	0.0598	50	3.430	3.256	1.417	1.289	3536	3217	9781

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"
18	1465	1668	1840	1991	2933	3334	1592	1762	1905	2031	3542	4066
16	2217	2512	2760	2979	4415	4992	2565	2823	3040	3232	5411	6179

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423, FM and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -17 gage
  - -Short cuts < 6'-0"
  - -Alternative metallic and painted finishes
- Acoustical Version

Inward Uniform Allowable Loads, ASD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.) 11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"
18	Single	W_n / Ω	174	146	125	107	94	82	73	65	58	53	48
		L/240	132	102	80	64	52	43	36	30	26	22	19
	Double	W_n / Ω	152	128	110	95	82	73	64	57	51	46	
		L/240	---	---	---	---	---	---	---	---	---	---	
	Triple	W_n / Ω	190	160	136								
		L/240	---	---	---								
16	Single	W_n / Ω	234	196	167	144	126	110	98	87	78	71	64
		L/240	169	130	102	82	67	55	46	39	33	28	24
	Double	W_n / Ω	210	177	151	130	114	100	89	79	71	64	
		L/240	---	---	---	---	---	---	---	---	---	---	
	Triple	W_n / Ω	262	220	188								
		L/240	---	---	183								

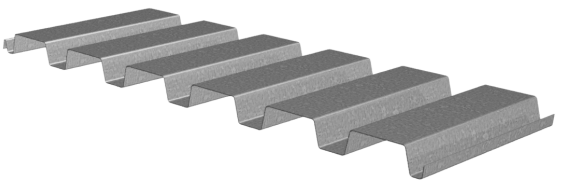
Notes:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

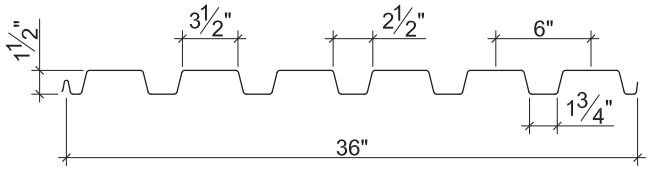
PLB™-36/HSB®-36 ROOF DECKS
GRADE 50 STEEL

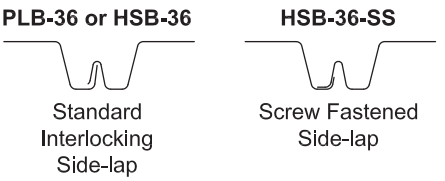
B ROOF DECKS

- **PLB-36 Deck used with PunchLok® II System**
- **HSB-36 Deck used with TSWs or BPs**
- **HSB-36-SS Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	1.9	0.0299	50	0.178	0.192	0.176	0.188	2688
20	2.3	0.0359	50	0.219	0.231	0.230	0.237	3220
18	2.9	0.0478	50	0.302	0.306	0.314	0.331	4264
16	3.5	0.0598	50	0.381	0.381	0.399	0.410	5302

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"
22	850	934	1075	1163	1558	1670	893	962	1077	1149	1933	2082
20	1188	1301	1492	1609	2189	2339	1316	1413	1575	1675	2743	2946
18	2001	2182	2485	2667	3714	3949	2388	2550	2822	2986	4713	5038
16	3006	3264	3698	3954	5604	5935	3775	4015	4419	4657	7164	7627

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. with gray primer
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018, UL, and FM Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Web and Fully Perforated Acoustical Versions
- HSB-30-NS Deck used with Side-lap screws

Inward Uniform Allowable Loads, ASD (psf)

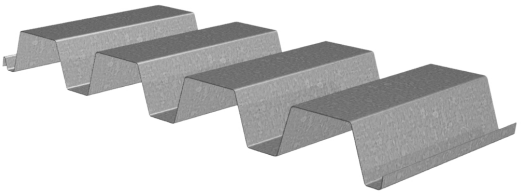
Deck Gage	Spans	Criteria	Span (ft-in.) 2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	W_n / Ω	878	390	219	140	98	72	55	43	35	29	24
		L/240	---	---	182	93	54	34	23	16	12	9	7
	Double	W_n / Ω	860	400	229	148	103	76	58	46	37	31	26
		L/240	---	---	---	---	---	---	---	42	30	23	18
	Triple	W_n / Ω	1039	492	283	184	128	95	73	57	47	39	32
		L/240	---	---	---	---	110	69	46	33	24	18	14
20	Single	W_n / Ω	1147	510	287	184	127	94	72	57	46	38	32
		L/240	---	---	224	115	66	42	28	20	14	11	8
	Double	W_n / Ω	1075	503	288	186	130	96	73	58	47	39	33
		L/240	---	---	---	---	---	---	71	50	36	27	21
	Triple	W_n / Ω	1295	617	356	231	162	119	92	72	59	49	41
		L/240	---	---	---	229	132	83	56	39	29	21	17
18	Single	W_n / Ω	1566	696	392	251	174	128	98	77	63	52	44
		L/240	---	---	309	158	92	58	39	27	20	15	11
	Double	W_n / Ω	1486	699	401	259	181	134	102	81	66	54	46
		L/240	---	---	---	---	---	---	94	66	48	36	28
	Triple	W_n / Ω	1785	856	496	322	225	166	128	101	82	68	57
		L/240	---	---	---	303	175	110	74	52	38	28	22
16	Single	W_n / Ω	1992	885	498	319	221	163	124	98	80	66	55
		L/240	---	---	390	200	116	73	49	34	25	19	14
	Double	W_n / Ω	1842	865	497	321	224	165	127	100	81	67	57
		L/240	---	---	---	---	---	---	118	83	60	45	35
	Triple	W_n / Ω	2213	1060	614	399	279	206	158	125	102	84	71
		L/240	---	---	---	377	218	137	92	65	47	35	27

Notes:

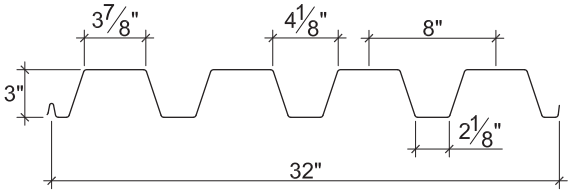
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

N3 ROOF DECKS

- **PLN3-32 Deck used with PunchLok® II System**
- **HSN3-32 Deck used with TSWs or BPs**
- **HSN3-32-NS Deck used with Side-lap Screws**
- **HSN3-32-SS Deck used with Side-lap Screws**



Nominal Dimensions



Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	2.0	0.0299	50	0.721	0.785	0.353	0.405	2346
20	2.4	0.0359	50	0.890	0.953	0.452	0.509	3829
18	3.1	0.0478	50	1.229	1.273	0.671	0.722	6823
16	3.9	0.0598	50	1.570	1.587	0.883	0.932	9108

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
22	562	617	711	789	1239	1447	537	578	648	706	1448	1707
20	794	870	997	1104	1737	2153	811	871	971	1055	2065	2596
18	1359	1481	1687	1860	2940	3682	1520	1623	1797	1943	3573	4547
16	2062	2240	2537	2788	4428	5495	2453	2609	2871	3092	5455	6883

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. with gray primer
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018, UL, and FM Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Web and Fully Perforated Acoustical Versions

Inward Uniform Allowable Loads, ASD (psf)

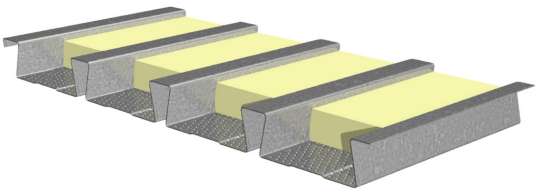
Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	6'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
22	Single	W_n / Ω	440	196	110	87	70	58	49	36	28	22	18
		L/240	---	---	92	65	47	36	27	17	12	8	6
	Double	W_n / Ω	445	211	122	97	79	66	55	41	31	25	20
		L/240	---	---	---	---	---	---	---	---	30	21	15
	Triple	W_n / Ω	531	258	150	120	98	81	69	51			
		L/240	---	---	---	---	97	73	56	35			
20	Single	W_n / Ω	564	251	141	111	90	75	63	46	35	28	23
		L/240	---	---	114	80	58	44	34	21	14	10	7
	Double	W_n / Ω	587	272	155	123	100	83	70	51	39	31	25
		L/240	---	---	---	---	---	---	---	---	37	26	19
	Triple	W_n / Ω	711	335	193	153	125	103	87	64			
		L/240	---	---	---	---	118	89	68	43			
18	Single	W_n / Ω	837	372	209	165	134	111	93	68	52	41	33
		L/240	---	---	157	111	81	61	47	29	20	14	10
	Double	W_n / Ω	855	391	222	176	143	118	99	73	56	44	36
		L/240	---	---	---	---	---	---	---	---	49	34	25
	Triple	W_n / Ω	1047	484	276	219	178	147	124	91			
		L/240	---	---	---	216	158	118	91	57			
16	Single	W_n / Ω	1101	490	275	218	176	146	122	90	69	54	44
		L/240	---	476	201	141	103	77	60	38	25	18	13
	Double	W_n / Ω	1108	505	287	227	185	153	128	95	72	57	46
		L/240	---	---	---	---	---	---	---	91	61	43	31
	Triple	W_n / Ω	1357	626	357	283	230	190	160	118			
		L/240	---	---	---	269	196	148	114	72			

Notes:

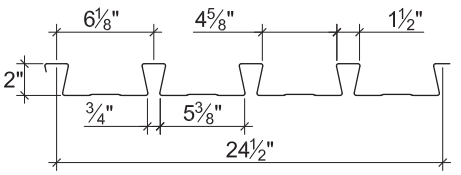
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

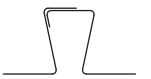
2.0DA ACOUSTICAL DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions





Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 40 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Allowable Moment M_n+/Ω (lb-ft/ft)	M_n-/Ω (lb-ft/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	2.0	0.0295	40	0.340	0.310	0.261	0.258	521	515	2896
20	2.4	0.0358	40	0.415	0.385	0.330	0.317	659	633	3498
18	3.2	0.0474	40	0.551	0.528	0.445	0.427	888	852	4584
16	4.0	0.0598	40	0.697	0.684	0.564	0.546	1126	1090	5723

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"
22	653	717	826	917	1281	1516	702	757	848	925	1567	1877
20	931	1020	1170	1296	1823	2146	1058	1136	1266	1376	2258	2690
18	1556	1697	1933	2132	3036	3544	1893	2023	2239	2422	3813	4507
16	2378	2582	2926	3215	4629	5360	3043	3237	3563	3837	5866	6880

Standard Features

- ASTM A653 SS GR 40 Min. with G90
- Standard lengths – 6'-0" to 42'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423 and FM Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -19 gage
  - -Short cuts < 6'-0"
  - -Alternative metallic and painted finishes

Inward Uniform Allowable Loads, ASD (psf)

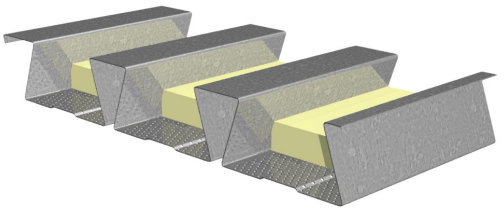
Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
22	Single	W_n / Ω	260	167	116	85	65	51	42	34	29	25	21
		L/240	---	---	103	65	44	31	22	17	13	10	8
	Double	W_n / Ω	251	162	113	83	64	51	41	34	29	24	21
		L/240	---	---	---	---	---	---	---	---	28	22	18
	Triple	W_n / Ω	311	201	141	104	80	63	51	42	36	30	26
		L/240	---	---	---	---	75	53	38	29	22	17	14
20	Single	W_n / Ω	329	211	146	108	82	65	53	44	37	31	27
		L/240	---	---	126	79	53	37	27	20	16	12	10
	Double	W_n / Ω	309	199	139	102	79	62	50	42	35	30	26
		L/240	---	---	---	---	---	---	---	---	---	28	22
	Triple	W_n / Ω	382	247	173	128	98	78	63	52	44	37	32
		L/240	---	---	---	---	93	65	48	36	28	22	17
18	Single	W_n / Ω	444	284	197	145	111	88	71	59	49	42	36
		L/240	---	---	167	105	71	50	36	27	21	16	13
	Double	W_n / Ω	415	268	187	138	106	84	68	56	47	40	35
		L/240	---	---	---	---	---	---	---	---	---	38	30
	Triple	W_n / Ω	513	333	233	172	132	104	85	70	59	50	43
		L/240	---	---	---	---	128	90	65	49	38	30	24
16	Single	W_n / Ω	563	360	250	184	141	111	90	74	63	53	46
		L/240	---	---	212	133	89	63	46	34	26	21	17
	Double	W_n / Ω	530	343	239	176	135	107	87	72	60	51	44
		L/240	---	---	---	---	---	---	---	---	---	49	39
	Triple	W_n / Ω	655	425	297	220	169	133	108	90	75	64	55
		L/240	---	---	---	---	165	116	85	64	49	39	31

Notes:

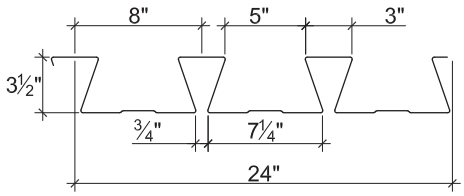
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

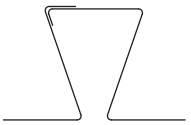
3.5DA ACOUSTICAL DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 40 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Allowable Moment M_n+/Ω (lb-ft/ft)	M_n-/Ω (lb-ft/ft)	Vertical Web Shear V_n/Ω (lb/ft)
20	3.1	0.0358	40	1.531	1.430	0.655	0.657	1307	1311	3435
18	4.1	0.0474	40	2.098	1.950	0.934	0.928	1864	1852	6012
16	5.1	0.0598	40	2.719	2.533	1.255	1.241	2505	2477	8313

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"
20	693	794	880	955	1459	1670	714	796	865	926	1724	1991
18	1168	1330	1467	1588	2422	2753	1310	1450	1568	1672	2927	3360
16	1793	2032	2233	2410	3681	4162	2137	2352	2533	2693	4515	5157

Standard Features

- ASTM A653 SS GR 40 Min. with G90
- Standard lengths – 6'-0" to 42'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423 and FM Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -19 gage
  - -Short cuts < 6'-0"
  - -Alternative metallic and painted finishes

Inward Uniform Allowable Loads, ASD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.) 11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"
20	Single	W_n / Ω	86	73	62	53	46	41	36	32	29	26	24
		L/240	75	58	46	37	30	25	20	17	15	13	11
	Double	W_n / Ω	85	72	61	53	46	41	36	32	29	26	24
		L/240	---	---	---	---	---	---	---	---	---	---	---
	Triple	W_n / Ω	106	89	76	66							
		L/240	---	---	---	65							
18	Single	W_n / Ω	123	104	88	76	66	58	52	46	41	37	34
		L/240	103	80	63	50	41	34	28	24	20	17	15
	Double	W_n / Ω	121	102	87	75	66	58	51	46	41	37	34
		L/240	---	---	---	---	---	---	---	---	---	---	33
	Triple	W_n / Ω	151	127	109	94							
		L/240	---	---	---	88							
16	Single	W_n / Ω	166	139	119	102	89	78	69	62	56	50	45
		L/240	134	103	81	65	53	44	36	31	26	22	19
	Double	W_n / Ω	162	137	117	101	88	77	68	61	55	49	45
		L/240	---	---	---	---	---	---	---	---	---	---	43
	Triple	W_n / Ω	202	170	145	125							
		L/240	---	---	143	114							

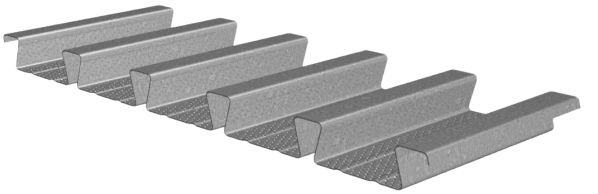
Notes:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

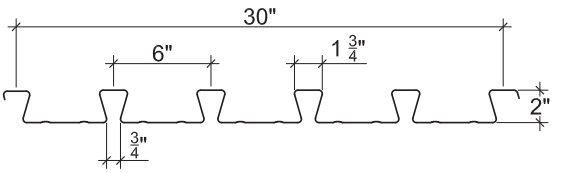
2.0DS-30 AC ACOUSTICAL DOVETAIL ROOF DECK
GRADE 50 STEEL

2.0DS-30 AC DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions



Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Allowable Moment M_n+/Ω (lb-ft/ft)	M_n-/Ω (lb-ft/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	2.1	0.0299	50	0.370	0.331	0.281	0.252	701	629	3334
20	2.5	0.0359	50	0.446	0.417	0.352	0.337	877	841	3978
18	3.4	0.0478	50	0.596	0.600	0.481	0.482	1201	1204	5229
16	4.3	0.0598	50	0.765	0.793	0.617	0.624	1540	1557	6455

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"
22	833	916	1054	1171	1557	1794	859	926	1037	1130	1905	2217
20	1166	1278	1465	1622	2186	2503	1272	1366	1523	1655	2706	3130
18	1970	2148	2446	2698	3707	4201	2322	2480	2745	2968	4656	5331
16	2964	3218	3646	4007	5590	6279	3684	3919	4313	4646	7085	8040

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423 and FM Listed

Optional Features

- Inquire regarding cost and lead times for:
  -21, 19 or 17 gage
  -Alternative metallic and painted finishes

Inward Uniform Allowable Loads, ASD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
22	Single	W_n / Ω	350	224	156	114	88	69	56	46	39	33	29
		L/240	---	194	112	71	47	33	24	18	14	11	9
	Double	W_n / Ω	306	198	138	102	78	62	50	41	35	30	26
		L/240	---	---	---	---	---	---	---	39	30	24	19
	Triple	W_n / Ω	378	245	172	127	97	77	62	52	43	37	
		L/240	---	---	---	119	80	56	41	31	24	19	
20	Single	W_n / Ω	439	281	195	143	110	87	70	58	49	42	36
		L/240	---	234	135	85	57	40	29	22	17	13	11
	Double	W_n / Ω	407	263	184	136	104	83	67	55	47	40	34
		L/240	---	---	---	---	---	---	66	49	38	30	24
	Triple	W_n / Ω	501	326	229	169	130	103	83	69	58	50	
		L/240	---	---	---	150	101	71	52	39	30	23	
18	Single	W_n / Ω	601	384	267	196	150	119	96	79	67	57	49
		L/240	---	313	181	114	76	54	39	29	23	18	14
	Double	W_n / Ω	578	375	263	194	149	118	96	79	67	57	49
		L/240	---	---	---	---	---	---	95	71	55	43	35
	Triple	W_n / Ω	711	464	326	241	185	147	119	99	83	71	
		L/240	---	---	---	217	145	102	74	56	43	34	
16	Single	W_n / Ω	770	493	342	251	193	152	123	102	86	73	63
		L/240	---	401	232	146	98	69	50	38	29	23	18
	Double	W_n / Ω	745	484	339	250	192	152	124	102	86	73	63
		L/240	---	---	---	---	---	---	---	94	72	57	46
	Triple	W_n / Ω	915	598	420	311	239	190	154	128	107	92	
		L/240	---	---	---	286	192	135	98	74	57	45	

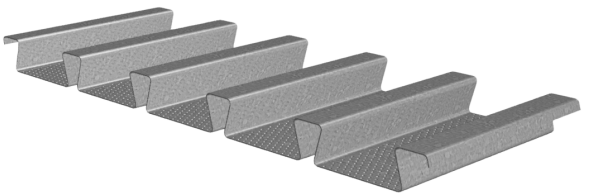
Notes:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

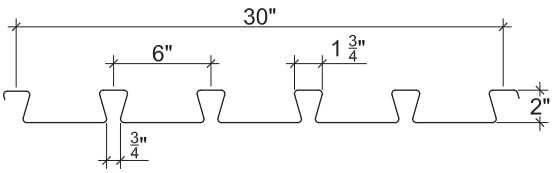
2.0DF-30 AC ACOUSTICAL DOVETAIL ROOF DECK
GRADE 50 STEEL

2.0DF-30 AC DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions



Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Allowable Moment M_n+/Ω (lb-ft/ft)	M_n-/Ω (lb-ft/ft)	Vertical Web Shear V_n/Ω (lb/ft)
20	2.5	0.0359	50	0.449	0.431	0.353	0.306	881	763	3978
18	3.4	0.0478	50	0.599	0.600	0.483	0.469	1206	1169	5229
16	4.2	0.0598	50	0.752	0.774	0.608	0.614	1517	1532	6455

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"
20	1166	1278	1465	1622	2186	2503	1272	1366	1523	1655	2706	3130
18	1970	2148	2446	2698	3707	4201	2322	2480	2745	2968	4656	5331
16	2964	3218	3646	4007	5590	6279	3684	3919	4313	4646	7085	8040

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423 and FM Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -22, 21, 19 or 17 gage
  - -Alternative metallic and painted finishes

Inward Uniform Allowable Loads, ASD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
20	Single	W_n / Ω	440	282	196	144	110	87	70	58	49	42	36
		L/240	---	235	136	86	57	40	29	22	17	13	11
	Double	W_n / Ω	371	240	168	123	95	75	61	50	42	36	31
		L/240	---	---	---	---	---	---	---	---	39	31	25
	Triple	W_n / Ω	459	298	208	154	118	93	76	63	53	45	
		L/240	---	---	---	---	104	73	53	40	31	24	
18	Single	W_n / Ω	603	386	268	197	151	119	96	80	67	57	49
		L/240	---	314	182	114	77	54	39	30	23	18	14
	Double	W_n / Ω	563	365	255	189	145	115	93	77	65	55	48
		L/240	---	---	---	---	---	---	---	71	55	43	35
	Triple	W_n / Ω	693	452	317	234	180	143	116	96	81	69	
		L/240	---	---	---	217	145	102	74	56	43	34	
16	Single	W_n / Ω	759	486	337	248	190	150	121	100	84	72	62
		L/240	---	394	228	144	96	68	49	37	29	22	18
	Double	W_n / Ω	735	477	334	247	189	150	122	101	85	72	62
		L/240	---	---	---	---	---	---	---	92	71	56	45
	Triple	W_n / Ω	902	589	414	306	236	187	152	126	106	90	
		L/240	---	---	---	279	187	131	96	72	55	44	

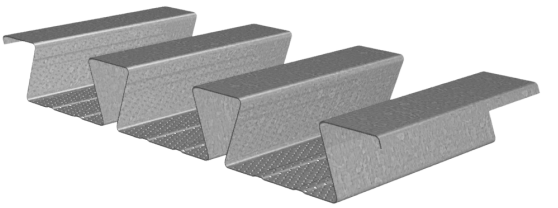
Notes:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

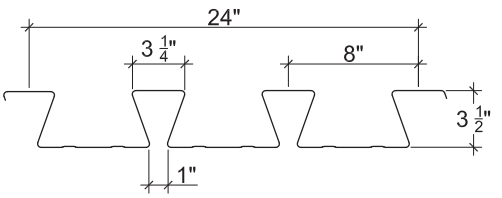
3.5DS-24 AC ACOUSTICAL DOVETAIL ROOF DECK
GRADE 50 STEEL

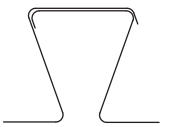
3.5DS-24 AC DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Allowable Moment M_n+/Ω (lb-ft/ft)	M_n-/Ω (lb-ft/ft)	Vertical Web Shear V_n/Ω (lb/ft)
20	3.2	0.0359	50	1.687	1.646	0.674	0.665	1682	1659	3754
18	4.2	0.0478	50	2.313	2.321	0.982	0.999	2450	2492	6813
16	5.3	0.0598	50	2.942	3.040	1.322	1.380	3299	3443	9781

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"
20	859	985	1091	1184	1735	1985	850	948	1030	1103	2046	2363
18	1465	1668	1840	1991	2933	3334	1592	1762	1905	2031	3542	4066
16	2217	2512	2760	2979	4415	4992	2565	2823	3040	3232	5411	6179

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423 and FM Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -19 or 17 gage
  - -Alternative metallic and painted finishes

Inward Uniform Allowable Loads, ASD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.) 11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"
20	Single	W_n / Ω	111	93	80	69	60	53	47	42	37	34	31
		L/240	83	64	50	40	33	27	23	19	16	14	12
	Double	W_n / Ω	108	91	77	67	58	51	46	41	37	33	
		L/240	---	---	---	---	---	---	---	---	---	32	
	Triple	W_n / Ω	133	113	96								
		L/240	---	---	93								
18	Single	W_n / Ω	162	136	116	100	87	77	68	60	54	49	44
		L/240	114	88	69	55	45	37	31	26	22	19	16
	Double	W_n / Ω	163	137	117	101	88	77	69	61	55	50	
		L/240	---	---	---	---	---	---	---	---	53	46	
	Triple	W_n / Ω	202	170	145								
		L/240	---	166	131								
16	Single	W_n / Ω	218	183	156	135	117	103	91	81	73	66	60
		L/240	145	112	88	70	57	47	39	33	28	24	21
	Double	W_n / Ω	225	189	162	139	122	107	95	85	76	69	
		L/240	---	---	---	---	---	---	---	82	70	60	
	Triple	W_n / Ω	279	235	201								
		L/240	---	218	171								

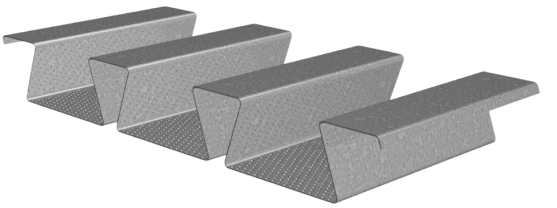
Notes:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

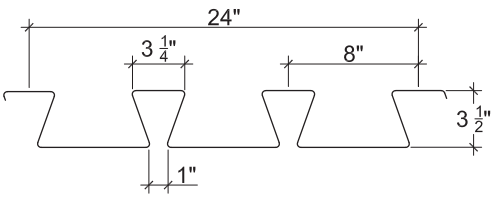
3.5DF-24 AC ACOUSTICAL DOVETAIL ROOF DECK
GRADE 50 STEEL

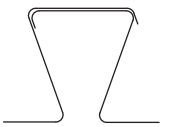
3.5DF-24 AC DOVETAIL ROOF DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Allowable Moment M_n+/Ω (lb-ft/ft)	M_n-/Ω (lb-ft/ft)	Vertical Web Shear V_n/Ω (lb/ft)
18	4.2	0.0478	50	2.318	2.268	0.984	0.834	2456	2081	6813
16	5.3	0.0598	50	2.948	2.947	1.325	1.144	3307	2855	9781

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"
18	1465	1668	1840	1991	2933	3334	1592	1762	1905	2031	3542	4066
16	2217	2512	2760	2979	4415	4992	2565	2823	3040	3232	5411	6179

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423 and FM Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -17 gage
  - -Alternative metallic and painted finishes

Inward Uniform Allowable Loads, ASD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.) 11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"
18	Single	W_n / Ω	162	136	116	100	87	77	68	61	54	49	45
		L/240	114	88	69	55	45	37	31	26	22	19	16
	Double	W_n / Ω	136	115	98	84	74	65	57	51	46	42	
		L/240	---	---	---	---	---	---	---	---	---	---	
	Triple	W_n / Ω	170	143	122								
		L/240	---	---	---								
16	Single	W_n / Ω	219	184	157	135	118	103	92	82	73	66	60
		L/240	145	112	88	70	57	47	39	33	28	24	21
	Double	W_n / Ω	187	157	134	116	101	89	79	70	63	57	
		L/240	---	---	---	---	---	---	---	---	---	---	
	Triple	W_n / Ω	233	196	167								
		L/240	---	---	166								

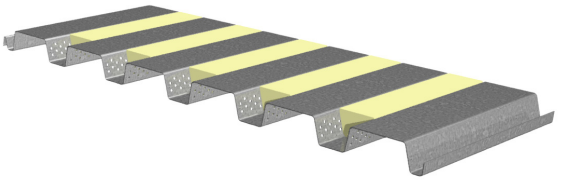
Notes:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

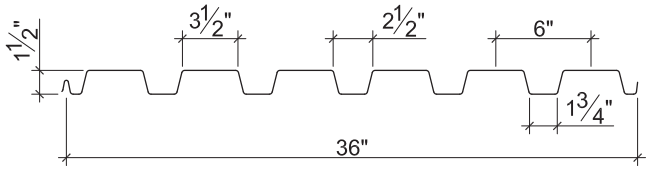
PLB™-36/HSB®-36 ACOUSTICAL ROOF DECKS
GRADE 50 STEEL

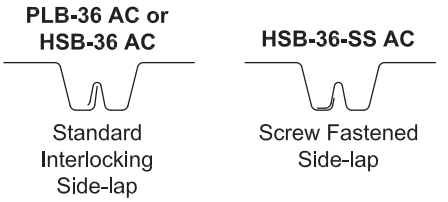
B ACOUSTICAL ROOF DECKS

- **PLB-36 AC Deck used with PunchLok® II System**
- **HSB-36 AC Deck used with TSWs or BPs**
- **HSB-36-SS AC Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	1.9	0.0299	50	0.173	0.187	0.170	0.182	2234
20	2.3	0.0359	50	0.213	0.225	0.223	0.230	2676
18	2.9	0.0478	50	0.294	0.298	0.306	0.322	3540
16	3.5	0.0598	50	0.371	0.371	0.388	0.399	4399

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"
22	835	917	1056	1141	1554	1666	864	930	1042	1111	1906	2053
20	1168	1280	1467	1582	2184	2334	1278	1371	1529	1626	2708	2909
18	1973	2151	2450	2630	3706	3941	2329	2488	2753	2913	4661	4983
16	2969	3224	3652	3905	5594	5924	3694	3930	4325	4558	7095	7554

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. with gray primer
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 and FM Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Fully Perforated Acoustical Versions
- HSB-30-NS AC Deck used with Side-lap screws

Inward Uniform Allowable Loads, ASD (psf)

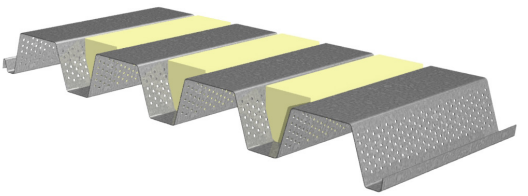
Deck Gage	Spans	Criteria	Span (ft-in.) 2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	W_n / Ω	848	377	212	136	94	69	53	42	34	28	24
		L/240	---	---	177	91	53	33	22	16	11	9	7
	Double	W_n / Ω	809	382	220	142	99	73	56	45	36	30	25
		L/240	---	---	---	---	---	---	---	41	30	22	17
	Triple	W_n / Ω	969	467	271	176	124	91	70	56	45	37	31
		L/240	---	---	---	---	107	67	45	32	23	17	13
20	Single	W_n / Ω	1113	494	278	178	124	91	70	55	45	37	31
		L/240	---	---	218	112	65	41	27	19	14	10	8
	Double	W_n / Ω	1011	480	277	179	125	93	71	56	46	38	32
		L/240	---	---	---	---	---	---	69	49	36	27	21
	Triple	W_n / Ω	1206	586	341	222	156	115	88	70	57	47	40
		L/240	---	---	---	---	129	81	54	38	28	21	16
18	Single	W_n / Ω	1527	679	382	244	170	125	95	75	61	50	42
		L/240	---	---	301	154	89	56	38	26	19	14	11
	Double	W_n / Ω	1398	668	387	251	175	130	99	79	64	53	44
		L/240	---	---	---	---	---	---	92	65	47	35	27
	Triple	W_n / Ω	1660	813	475	310	218	161	124	98	80	66	55
		L/240	---	---	---	295	171	108	72	51	37	28	21
16	Single	W_n / Ω	1937	861	484	310	215	158	121	96	77	64	54
		L/240	---	---	380	195	113	71	48	33	24	18	14
	Double	W_n / Ω	1733	828	479	311	217	160	123	98	79	65	55
		L/240	---	---	---	---	---	---	114	80	59	44	34
	Triple	W_n / Ω	2059	1008	589	384	270	200	153	122	99	82	69
		L/240	---	---	---	367	213	134	90	63	46	34	27

Notes:

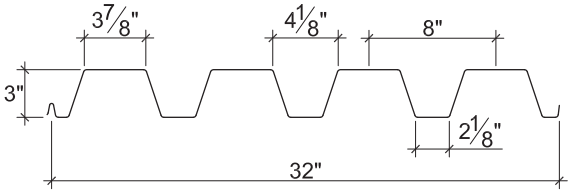
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

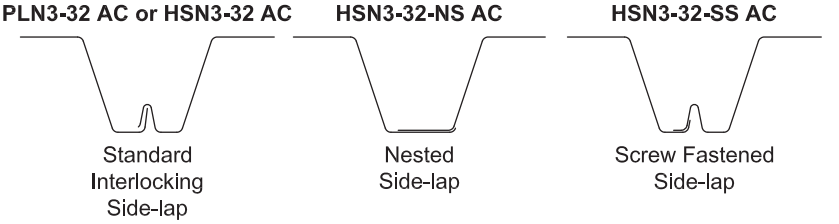
N3 ACOUSTICAL ROOF DECKS

- **PLN3-32 AC Deck used with PunchLok® II System**
- **HSN3-32 AC Deck used with TSWs or BPs**
- **HSN3-32-NS AC Deck used with Side-lap Screws**
- **HSN3-32-SS AC Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	2.0	0.0299	50	0.674	0.737	0.321	0.374	1901
20	2.4	0.0359	50	0.833	0.894	0.414	0.471	3120
18	3.1	0.0478	50	1.154	1.195	0.620	0.672	5526
16	3.9	0.0598	50	1.475	1.491	0.821	0.870	7373

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
22	542	596	685	761	1234	1440	499	537	602	656	1409	1662
20	769	842	966	1069	1730	2144	762	818	912	991	2016	2534
18	1323	1442	1642	1811	2930	3669	1445	1543	1708	1847	3502	4455
16	2015	2188	2479	2724	4414	5477	2349	2499	2751	2962	5359	6762

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. with gray primer
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 and FM Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Fully Perforated Acoustical Versions

Inward Uniform Allowable Loads, ASD (psf)

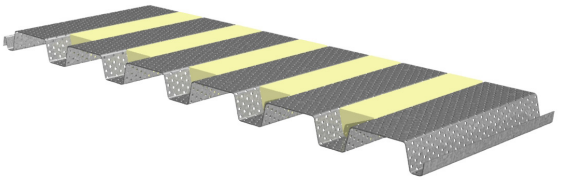
Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	6'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
22	Single	W_n / Ω	401	178	100	79	64	53	45	33	25	20	16
		L/240	---	---	86	61	44	33	26	16	11	8	6
	Double	W_n / Ω	398	192	111	89	72	60	51	38	29	23	19
		L/240	---	---	---	---	---	---	---	---	28	20	15
	Triple	W_n / Ω	470	233	137	109	89	74	63	47			
		L/240	---	---	---	---	---	69	53	33			
20	Single	W_n / Ω	516	230	129	102	83	68	57	42	32	26	21
		L/240	---	---	107	75	55	41	32	20	13	9	7
	Double	W_n / Ω	532	249	143	114	92	77	65	48	36	29	23
		L/240	---	---	---	---	---	---	---	---	34	24	18
	Triple	W_n / Ω	640	306	177	141	115	95	80	59			
		L/240	---	---	---	---	111	83	64	40			
18	Single	W_n / Ω	773	344	193	153	124	102	86	63	48	38	31
		L/240	---	---	148	104	76	57	44	28	18	13	9
	Double	W_n / Ω	784	361	206	163	133	110	92	68	52	41	33
		L/240	---	---	---	---	---	---	---	---	46	32	24
	Triple	W_n / Ω	954	446	255	203	165	137	115	85			
		L/240	---	---	---	---	148	111	86	54			
16	Single	W_n / Ω	1024	455	256	202	164	135	114	84	64	51	41
		L/240	---	448	189	133	97	73	56	35	24	17	12
	Double	W_n / Ω	1019	468	267	212	172	142	120	88	68	53	43
		L/240	---	---	---	---	---	---	---	86	57	40	29
	Triple	W_n / Ω	1241	578	331	263	214	177	149	110			
		L/240	---	---	---	253	185	139	107	67			

Notes:

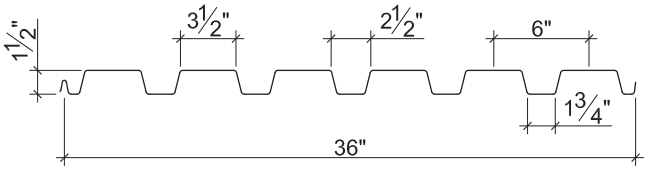
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

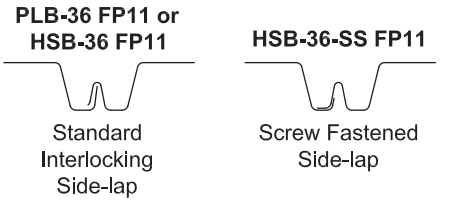
11% OPEN FULLY PERFORATED B ROOF DECKS

- **PLB-36 FP11 Deck used with PunchLok® II System**
- **HSB-36 FP11 Deck used with TSWs or BPs**
- **HSB-36-SS FP11 Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	1.7	0.0299	50	0.141	0.145	0.098	0.105	1991
20	2.0	0.0359	50	0.173	0.175	0.128	0.132	2385
18	2.6	0.0478	50	0.231	0.231	0.175	0.185	3158
16	3.1	0.0598	50	0.287	0.287	0.223	0.229	3927

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"
22	824	906	1043	1127	1552	1663	844	909	1018	1085	1888	2033
20	1155	1266	1451	1565	2181	2330	1252	1344	1498	1593	2685	2884
18	1955	2131	2427	2605	3702	3936	2291	2446	2708	2865	4628	4947
16	2945	3198	3623	3873	5587	5918	3642	3874	4263	4493	7050	7506

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. with gray primer
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Web Perforated Acoustical Versions
- HSB-30-NS FP11 Deck used with Side-lap screws

Inward Uniform Allowable Loads, ASD (psf) FP11

Deck Gage	Spans	Criteria	Span (ft-in.) 2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	W_n / Ω	489	217	122	78	54	40	31	24	20	16	14
		L/240	---	---	---	74	43	27	18	13	9	7	5
	Double	W_n / Ω	498	228	129	83	58	43	33	26	21	17	15
		L/240	---	---	---	---	---	---	---	---	---	17	13
	Triple	W_n / Ω	610	282	161	104	72	53	41	32	26	22	18
		L/240	---	---	---	---	---	52	35	25	18	13	10
20	Single	W_n / Ω	638	284	160	102	71	52	40	32	26	21	18
		L/240	---	---	---	91	53	33	22	16	11	9	7
	Double	W_n / Ω	623	285	162	104	73	54	41	32	26	22	18
		L/240	---	---	---	---	---	---	---	---	---	21	16
	Triple	W_n / Ω	761	353	202	130	91	67	51	40	33	27	23
		L/240	---	---	---	---	---	63	42	30	22	16	13
18	Single	W_n / Ω	873	388	218	140	97	71	55	43	35	29	24
		L/240	---	---	---	121	70	44	30	21	15	11	9
	Double	W_n / Ω	867	399	227	146	102	75	57	45	37	30	26
		L/240	---	---	---	---	---	---	---	---	36	27	21
	Triple	W_n / Ω	1057	492	282	182	127	93	72	57	46	38	32
		L/240	---	---	---	---	---	83	56	39	29	21	17
16	Single	W_n / Ω	1113	494	278	178	124	91	70	55	45	37	31
		L/240	---	---	---	151	87	55	37	26	19	14	11
	Double	W_n / Ω	1074	493	281	181	126	93	71	56	46	38	32
		L/240	---	---	---	---	---	---	---	---	45	34	26
	Triple	W_n / Ω	1309	609	349	225	157	116	89	70	57	47	40
		L/240	---	---	---	---	---	104	69	49	36	27	21

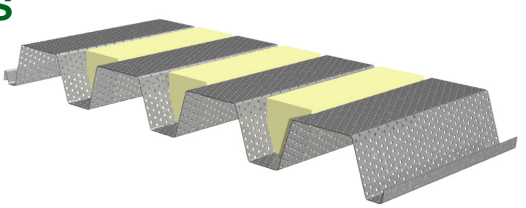
Notes:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

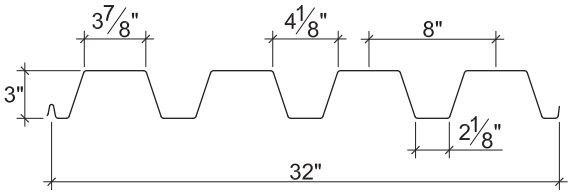
PLN3™-32/HSN3™-32 FULLY PERFED ROOF DECKS
GRADE 50 STEEL

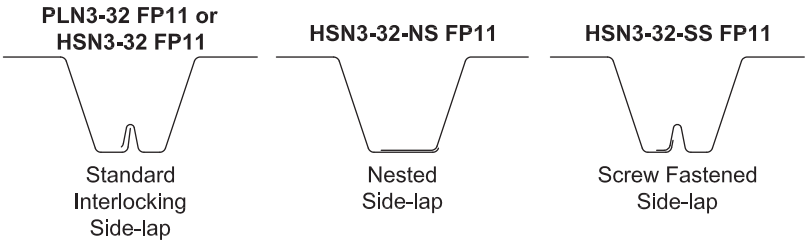
11% OPEN FULLY PERFORATED N3 ROOF DECKS

- **PLN3-32 FP11 Deck used with PunchLok® II System**
- **HSN3-32 FP11 Deck used with TSWs or BPs**
- **HSN3-32-NS FP11 Deck used with Side-lap Screws**
- **HSN3-32-SS FP11 Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	1.8	0.0299	50	0.577	0.603	0.197	0.226	1738
20	2.1	0.0359	50	0.706	0.724	0.252	0.284	2853
18	2.8	0.0478	50	0.958	0.961	0.374	0.403	5054
16	3.5	0.0598	50	1.199	1.199	0.493	0.520	6746

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
22	533	586	674	748	1231	1437	482	519	581	633	1391	1641
20	757	830	951	1054	1727	2140	739	793	884	961	1993	2506
18	1307	1424	1622	1789	2925	3663	1411	1507	1668	1804	3469	4414
16	1993	2165	2453	2695	4408	5470	2303	2450	2696	2904	5315	6707

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. with gray primer
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Web Perforated Acoustical Versions

Inward Uniform Allowable Loads, ASD (psf)

FP11

Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	6'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
22	Single	W_n / Ω	246	109	61	49	39	33	27	20	15	12	10
		L/240	---	---	---	---	38	28	22	14	9	6	5
	Double	W_n / Ω	261	121	69	55	45	37	31	23	18	14	11
		L/240	---	---	---	---	---	---	---	---	---	---	---
	Triple	W_n / Ω	317	149	86	68	55	46	39	29			
		L/240	---	---	---	---	---	---	---	27			
20	Single	W_n / Ω	314	140	79	62	50	42	35	26	20	16	13
		L/240	---	---	---	---	46	35	27	17	11	8	6
	Double	W_n / Ω	338	154	88	69	56	47	39	29	22	17	14
		L/240	---	---	---	---	---	---	---	---	---	---	---
	Triple	W_n / Ω	415	191	109	86	70	58	49	36			
		L/240	---	---	---	---	---	---	---	33			
18	Single	W_n / Ω	466	207	117	92	75	62	52	38	29	23	19
		L/240	---	---	---	86	63	47	36	23	15	11	8
	Double	W_n / Ω	488	220	125	99	80	66	56	41	31	25	20
		L/240	---	---	---	---	---	---	---	---	---	---	19
	Triple	W_n / Ω	602	274	155	123	100	83	69	51			
		L/240	---	---	---	---	---	---	69	43			
16	Single	W_n / Ω	615	273	154	121	98	81	68	50	38	30	25
		L/240	---	---	154	108	79	59	45	29	19	13	10
	Double	W_n / Ω	631	285	161	127	103	85	72	53	40	32	26
		L/240	---	---	---	---	---	---	---	---	---	---	24
	Triple	W_n / Ω	779	354	201	159	129	107	90	66			
		L/240	---	---	---	---	---	---	86	54			

Notes:

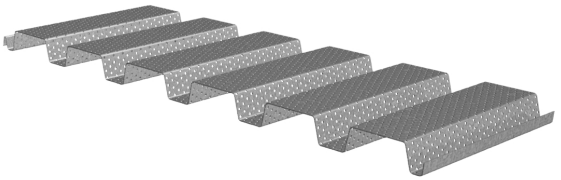
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

PLB™-36/HSB®-36 FULLY PERFED ROOF DECKS
GRADE 50 STEEL

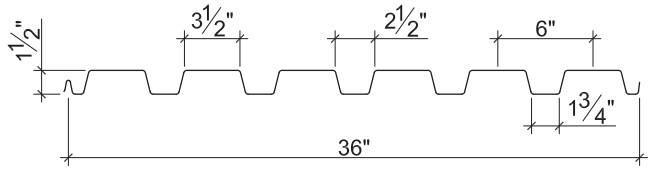
ASD

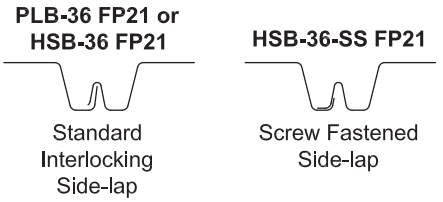
21% OPEN FULLY PERFORATED B ROOF DECKS

- **PLB-36 FP21 Deck used with PunchLok® II System**
- **HSB-36 FP21 Deck used with TSWs or BPs**
- **HSB-36-SS FP21 Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	1.5	0.0299	50	0.118	0.120	0.078	0.083	1478
20	1.8	0.0359	50	0.143	0.143	0.102	0.105	1771
18	2.3	0.0478	50	0.190	0.190	0.139	0.147	2344
16	2.8	0.0598	50	0.236	0.236	0.177	0.182	2916

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"
22	794	873	1004	1086	1544	1655	787	847	949	1012	1835	1976
20	1118	1224	1404	1514	2171	2320	1177	1264	1409	1498	2618	2812
18	1901	2073	2360	2534	3687	3921	2178	2327	2575	2725	4529	4842
16	2874	3121	3535	3780	5568	5897	3487	3710	4083	4303	6918	7366

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. with gray primer
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Acoustical Insulation
- Web Perforated Acoustical Versions
- HSB-30-NS FP21 Deck used with Side-lap screws

Inward Uniform Allowable Loads, ASD (psf) FP21

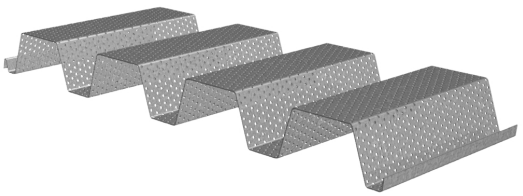
Deck Gage	Spans	Criteria	Span (ft-in.) 2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	W_n / Ω	389	173	97	62	43	32	24	19	16	13	11
		L/240	---	---	---	62	36	23	15	11	8	6	4
	Double	W_n / Ω	391	179	102	66	46	34	26	20	17	14	11
		L/240	---	---	---	---	---	---	---	---	---	---	11
	Triple	W_n / Ω	477	222	127	82	57	42	32	25	21	17	14
		L/240	---	---	---	---	---	---	29	20	15	11	9
20	Single	W_n / Ω	509	226	127	81	57	42	32	25	20	17	14
		L/240	---	---	---	75	43	27	18	13	9	7	5
	Double	W_n / Ω	492	226	129	83	58	43	33	26	21	17	15
		L/240	---	---	---	---	---	---	---	---	---	17	13
	Triple	W_n / Ω	599	279	160	103	72	53	41	32	26	22	18
		L/240	---	---	---	---	---	52	35	24	18	13	10
18	Single	W_n / Ω	693	308	173	111	77	57	43	34	28	23	19
		L/240	---	---	---	100	58	36	24	17	12	9	7
	Double	W_n / Ω	684	316	180	116	81	60	46	36	29	24	20
		L/240	---	---	---	---	---	---	---	---	---	23	17
	Triple	W_n / Ω	831	389	223	144	101	74	57	45	37	30	25
		L/240	---	---	---	---	---	69	46	32	24	18	14
16	Single	W_n / Ω	884	393	221	141	98	72	55	44	35	29	25
		L/240	---	---	---	124	72	45	30	21	15	12	9
	Double	W_n / Ω	846	391	223	144	100	74	56	45	36	30	25
		L/240	---	---	---	---	---	---	---	---	---	28	22
	Triple	W_n / Ω	1028	482	276	178	125	92	70	56	45	37	31
		L/240	---	---	---	---	---	85	57	40	29	22	17

Notes:

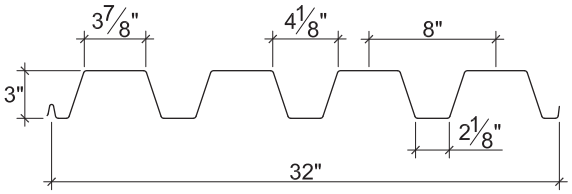
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

21% OPEN FULLY PERFORATED N3 ROOF DECK

- **PLN3-32 FP21 Deck used with PunchLok® II System**
- **HSN3-32 FP21 Deck used with TSWs or BPs**
- **HSN3-32-NS FP21 Deck used with Side-lap Screws**
- **HSN3-32-SS FP21 Deck used with Side-lap Screws**



Nominal Dimensions



Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	1.6	0.0299	50	0.483	0.496	0.156	0.180	1290
20	1.9	0.0359	50	0.588	0.595	0.200	0.225	2118
18	2.4	0.0478	50	0.789	0.789	0.297	0.320	3752
16	3.1	0.0598	50	0.984	0.984	0.391	0.413	5008

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
22	499	548	631	701	1222	1427	418	450	504	549	1326	1564
20	715	783	898	995	1715	2126	656	704	785	853	1910	2401
18	1246	1359	1547	1707	2908	3641	1285	1372	1519	1643	3348	4260
16	1914	2078	2355	2587	4384	5441	2130	2265	2493	2685	5154	6503

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. with gray primer
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Acoustical Insulation
- Web Perforated Acoustical Versions

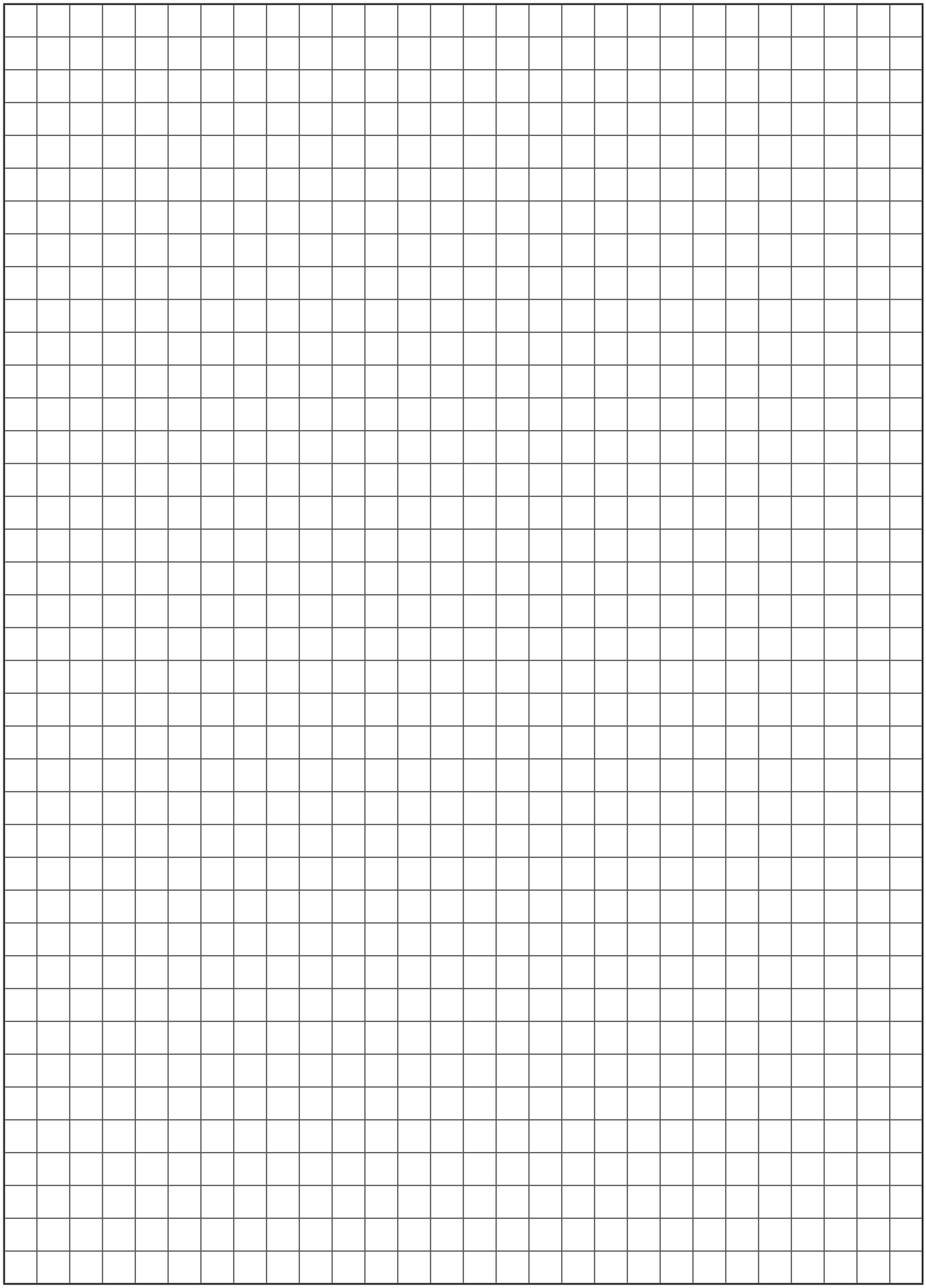
Inward Uniform Allowable Loads, ASD (psf)

FP21

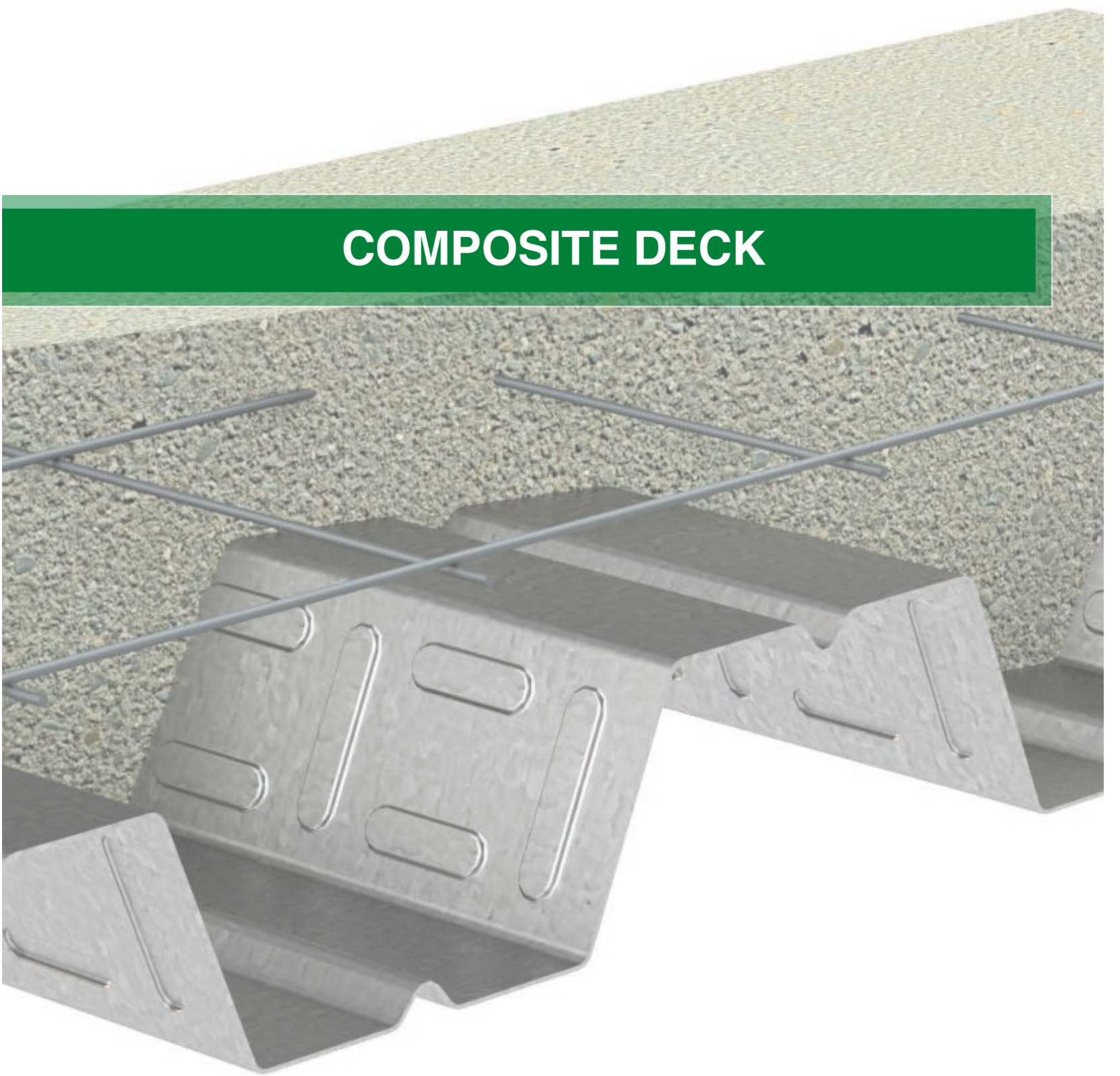
Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	6'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
22	Single	W_n / Ω	195	86	49	38	31	26	22	16	12	10	8
		L/240	---	---	---	---	---	24	18	12	8	5	4
	Double	W_n / Ω	206	96	55	44	35	29	25	18	14	11	9
		L/240	---	---	---	---	---	---	---	---	---	---	---
	Triple	W_n / Ω	249	118	68	54	44	36	31	23			
		L/240	---	---	---	---	---	---	---	22			
20	Single	W_n / Ω	249	111	62	49	40	33	28	20	16	12	10
		L/240	---	---	---	---	39	29	22	14	9	7	5
	Double	W_n / Ω	267	122	69	55	45	37	31	23	17	14	11
		L/240	---	---	---	---	---	---	---	---	---	---	---
	Triple	W_n / Ω	326	151	86	68	55	46	39	28			
		L/240	---	---	---	---	---	---	---	27			
18	Single	W_n / Ω	371	165	93	73	59	49	41	30	23	18	15
		L/240	---	---	---	71	52	39	30	19	13	9	6
	Double	W_n / Ω	386	175	99	78	63	53	44	32	25	20	16
		L/240	---	---	---	---	---	---	---	---	---	---	16
	Triple	W_n / Ω	475	217	123	98	79	66	55	41			
		L/240	---	---	---	---	---	---	---	36			
16	Single	W_n / Ω	488	217	122	96	78	64	54	40	30	24	20
		L/240	---	---	---	88	65	48	37	24	16	11	8
	Double	W_n / Ω	499	226	128	101	82	68	57	42	32	25	21
		L/240	---	---	---	---	---	---	---	---	---	---	19
	Triple	W_n / Ω	615	280	159	126	102	85	71	52			
		L/240	---	---	---	---	---	---	70	44			

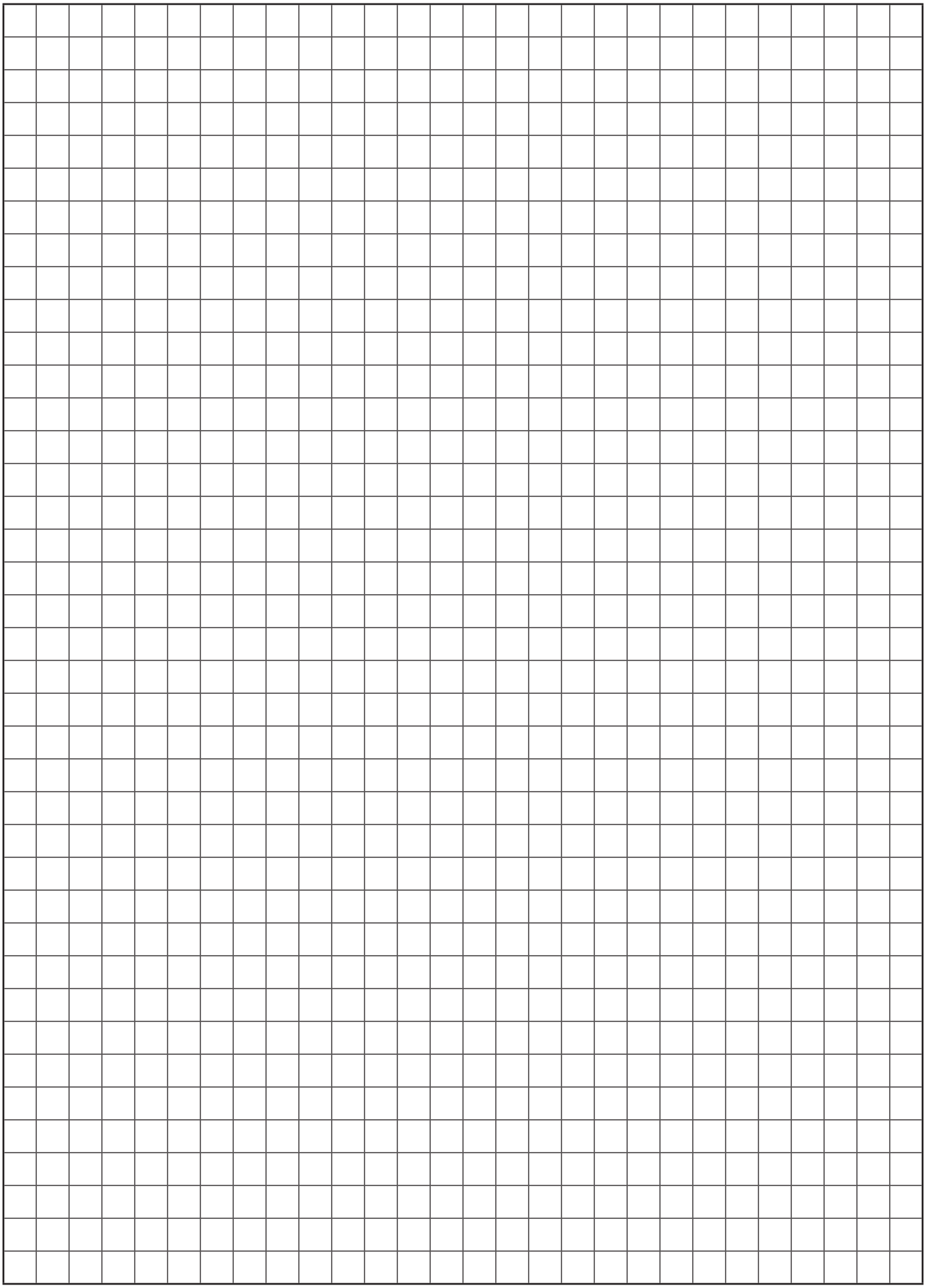
Notes:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.



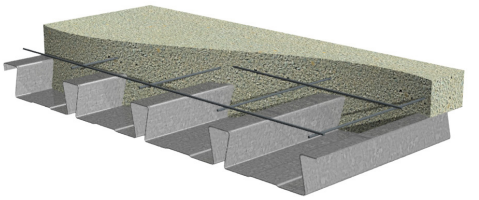
COMPOSITE DECK



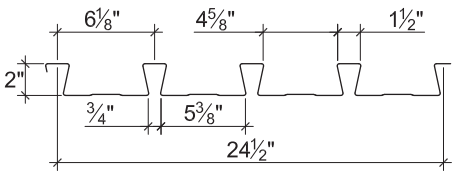


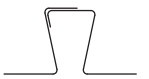
2.0D FORMLOK DOVETAIL DECK

- Enhanced 2-Coat Polyester Paint
- White Factory Primer Paint
- Galvanized Finish
- UL Listed



Nominal Dimensions





Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2Ie+Ig)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 40 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
22	2.1	0.0295	40	0.387	0.359	0.272	0.272	816	816	4401
20	2.6	0.0358	40	0.472	0.447	0.343	0.334	1029	1002	5316
18	3.4	0.0474	40	0.626	0.612	0.463	0.450	1389	1350	6968
16	4.3	0.0598	40	0.792	0.791	0.587	0.576	1761	1728	8698

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"
22	999	1098	1264	1403	1905	2255	1075	1158	1297	1415	2331	2792
20	1425	1561	1790	1982	2712	3192	1618	1737	1937	2105	3358	4001
18	2381	2596	2957	3262	4516	5272	2897	3094	3426	3705	5672	6705
16	3638	3951	4476	4919	6885	7973	4656	4953	5451	5871	8726	10235

Standard Features

- ASTM A653 SS GR 40 Min. with G90
- Standard lengths – 6'-0" to 42'-0"
- Tables conform to ANSI/SDI C-2017
- IAPMO UES ER-423 and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -19 gage
  - -Short cuts < 6'-0"
  - -Alternative metallic and painted finishes

2.0D FORMLOK® DOVETAIL DECK-SLAB
NORMAL WEIGHT CONCRETE (145 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
4"	2"	22	6'-10"	7'-10"	8'-1"
		20	7'-11"	8'-8"	8'-11"
		18	9'-6"	10'-0"	10'-4"
		16	10'-11"	11'-3"	11'-8"
5¼"	3¼"	22	6'-2"	7'-1"	7'-4"
		20	7'-2"	7'-10"	8'-1"
		18	8'-6"	9'-1"	9'-4"
		16	9'-9"	10'-2"	10'-6"
5½"	3½"	22	6'-1"	6'-11"	7'-2"
		20	7'-0"	7'-8"	7'-11"
		18	8'-5"	8'-11"	9'-2"
		16	9'-7"	10'-0"	10'-4"

Composite Deck-Slab Properties

Deck Gage	Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in^4/ft)	Moment ϕM_{no} (kip-ft/ft)	Shear ϕV_{no} (kip/ft)
22	46.0	5.75	5.12	5.96
20	46.5	6.16	6.09	5.96
18	47.3	6.85	7.77	5.96
16	48.2	7.50	9.48	5.96
22	61.1	12.19	6.60	7.82
20	61.6	13.03	7.87	7.82
18	62.4	14.42	10.10	7.82
16	63.3	15.75	12.38	7.82
22	64.1	13.87	6.90	8.03
20	64.6	14.81	8.23	8.19
18	65.4	16.39	10.57	8.19
16	66.3	17.90	12.98	8.19

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.) 10'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	18'-0"	20'-0"
4"	22	354/251	229/145	187/114	153/91	126/74	104/61	71/43	47/31
	20	430/269	282/155	232/122	192/98	160/79	134/65	94/46	65/33
	18	564/299	374/173	311/136	260/109	219/88	186/73	135/51	98/37
	16	700/327	469/189	391/149	329/119	279/97	238/80	176/56	131/40
5¼"	22	454/532	293/308	239/242	196/194	161/157	132/130	89/91	58/66
	20	555/569	363/329	298/259	247/207	205/168	171/138	120/97	83/71
	18	732/630	485/364	403/286	337/229	284/186	240/153	174/108	127/78
	16	914/688	611/398	510/313	429/250	364/203	310/168	229/118	171/86
5½"	22	475/606	306/350	249/275	204/220	168/179	138/148	93/103	61/75
	20	580/647	379/374	312/294	258/235	215/191	179/158	125/111	87/80
	18	767/716	508/414	422/325	353/260	297/212	251/174	182/122	132/89
	16	958/782	641/452	534/355	450/285	381/231	326/190	240/134	180/97

Notes:

1. For high loads long term concrete creep should be considered.
2. Use Composite Deck-Slab Strength Web Based Solutions for alternate slabs or ASD design.

2.0D FORMLOK® DOVETAIL DECK-SLAB
LIGHT WEIGHT CONCRETE (110 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
4"	2"	22	7'-7"	8'-8"	8'-11"
		20	8'-9"	9'-6"	9'-10"
		18	10'-6"	11'-0"	11'-5"
		16	11'-10"	12'-5"	12'-10"
4½"	2½"	22	7'-3"	8'-4"	8'-7"
		20	8'-5"	9'-2"	9'-6"
		18	10'-1"	10'-7"	10'-11"
		16	11'-6"	11'-11"	12'-4"
5¼"	3¼"	22	6'-10"	7'-10"	8'-1"
		20	7'-11"	8'-8"	9'-0"
		18	9'-6"	10'-0"	10'-4"
		16	10'-11"	11'-4"	11'-8"

Composite Deck-Slab Properties

Deck Gage	Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in^4/ft)	Moment ϕM_{no} (kip-ft/ft)	Shear ϕV_{no} (kip/ft)
22	35.4	4.43	4.91	5.96
20	35.9	4.79	5.81	5.96
18	36.7	5.36	7.38	5.96
16	37.6	5.89	8.96	5.96
22	40.0	6.11	5.48	6.45
20	40.5	6.59	6.49	6.70
18	41.3	7.36	8.26	6.70
16	42.2	8.09	10.05	6.70
22	46.9	9.33	6.36	6.87
20	47.4	10.04	7.55	7.69
18	48.2	11.21	9.64	7.82
16	49.1	12.30	11.77	7.82

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.) 10'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	18'-0"	20'-0"
4"	22	350/193	230/112	189/88	157/70	131/57	110/47	78/33	55/24
	20	421/209	279/121	231/95	193/76	163/61	138/51	100/35	73/26
	18	546/234	365/135	305/106	257/85	218/69	186/57	138/40	103/29
	16	671/257	452/149	379/117	320/93	273/76	234/62	176/44	134/32
4½"	22	390/267	256/154	211/121	175/97	146/79	123/65	87/45	61/33
	20	470/287	311/166	258/131	216/104	182/85	154/70	111/49	81/35
	18	611/321	409/186	341/146	287/117	244/95	208/78	154/55	115/40
	16	753/353	507/204	425/160	359/128	306/104	263/86	197/60	150/44
5¼"	22	452/407	296/236	244/185	203/148	169/120	142/99	100/69	70/50
	20	547/438	362/254	300/199	251/159	211/130	179/107	129/75	94/54
	18	713/489	477/283	398/222	335/178	284/145	243/119	180/83	135/61
	16	882/537	594/311	498/244	421/195	359/159	308/131	231/92	176/67

Notes:

1. For high loads long term concrete creep should be considered.
2. Use Composite Deck-Slab Strength Web Based Solutions for alternate slabs or ASD design.

2.0D FormLok Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage	
				WWR (OR)	Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3)
					4D 65/60BG
Normal Weight Concrete (145 pcf)					
4	2	1.12	0.028	6x6-W1.4xW1.4	23
4½	2½	1.28	0.028	6x6-W1.4xW1.4	18
4¾	2¾	1.35	0.028	6x6-W1.4xW1.4	16
5	3	1.43	0.028	6x6-W1.4xW1.4	15
5¼	3¼	1.51	0.029	6x6-W2.1xW2.1	15
5½	3½	1.58	0.032	6x6-W2.1xW2.1	15
6	4	1.74	0.036	6x6-W2.1xW2.1	15
6¾	4¾	1.97	0.043	6x6-W2.9xW2.9	15
Light Weight Concrete (110 pcf)					
4	2	1.12	0.028	6X6-W1.4xW1.4	33
4½	2½	1.28	0.028	6x6-W1.4xW1.4	25
5	3	1.43	0.028	6x6-W1.4xW1.4	20
5¼	3¼	1.51	0.029	6x6-W2.1xW2.1	20
5½	3½	1.58	0.032	6x6-W2.1xW2.1	20
6	4	1.74	0.036	6x6-W2.1xW2.1	20

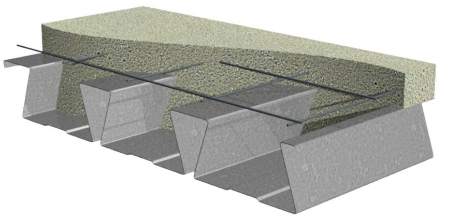
Notes:

1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

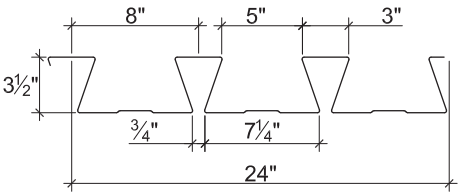
For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@bekaert.com.

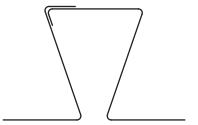
3.5D FORMLOK DOVETAIL DECK

- Enhanced 2-Coat Polyester Paint
- White Factory Primer Paint
- Galvanized Finish
- UL Listed



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2Ie+Ig)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 40 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
20	3.3	0.0358	40	1.762	1.646	0.676	0.781	2028	2343	5221
18	4.3	0.0474	40	2.415	2.272	0.980	1.070	2940	3210	9138
16	5.4	0.0598	40	3.133	2.968	1.317	1.377	3951	4131	12635

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

	Bearing Length of Webs											
	One-Flange Loading						Two-Flange Loading					
Deck Gage	End Bearing				Interior Bearing		End Bearing				Interior Bearing	
	2"	3"	4"	5"	4"	6"	2"	3"	4"	5"	4"	6"
20	1060	1215	1346	1461	2170	2484	1092	1218	1324	1417	2564	2962
18	1787	2035	2245	2429	3602	4096	2004	2219	2399	2559	4354	4998
16	2744	3108	3416	3687	5475	6191	3270	3599	3876	4120	6717	7671

Standard Features

- ASTM A653 SS GR 40 Min. with G90
- Standard lengths – 6'-0" to 42'-0"
- Tables conform to ANSI/SDI C-2017
- IAPMO UES ER-423 and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -19 gage
  - -Short cuts < 6'-0"
  - -Alternative metallic and painted finishes

3.5D FORMLOK® DOVETAIL DECK-SLAB
NORMAL WEIGHT CONCRETE (145 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
5½"	2"	20	10'-10"	12'-0"	12'-5"
		18	13'-4"	14'-1"	14'-7"
		16	14'-9"	15'-11"	16'-5"
5¾"	2¼"	20	10'-8"	11'-10"	12'-2"
		18	13'-1"	13'-10"	14'-3"
		16	14'-7"	15'-8"	16'-2"
6"	2½"	20	10'-5"	11'-7"	12'-0"
		18	12'-10"	13'-7"	14'-0"
		16	14'-5"	15'-4"	15'-10"

Composite Deck-Slab Properties

Concrete + Deck	Deflection	Moment	Shear
	$I_d = (I_{cr}+I_u)/2$	ϕM_{no}	ϕV_{no}
(psf)	(in^4/ft)	(kip-ft/ft)	(kip/ft)
59.9	14.40	10.22	6.78
60.9	15.99	13.00	6.78
62.0	17.61	15.35	6.78
62.9	16.27	10.60	7.09
63.9	18.03	13.58	7.09
65.0	19.75	16.51	7.09
65.9	18.29	10.99	7.39
66.9	20.24	14.09	7.39
68.0	22.14	17.25	7.39

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)							
		15'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	23'-0"	25'-0"
5½"	20	291/186	211/128	180/107	154/91	132/78	113/67	82/51	58/40
	18	389/207	286/142	248/119	215/101	187/87	162/75	123/57	93/44
	16	471/228	350/156	304/131	265/112	232/96	204/83	157/63	122/49
5¾"	20	301/210	217/144	186/121	159/103	136/88	116/76	84/58	60/45
	18	406/233	299/160	258/135	224/114	194/98	169/85	128/64	97/50
	16	509/255	379/175	329/147	287/125	252/107	221/93	171/70	133/55
6"	20	311/236	225/162	192/137	164/116	140/99	120/86	87/65	61/51
	18	420/262	309/180	267/151	231/128	201/110	175/95	132/72	100/56
	16	531/286	395/196	344/165	300/141	263/120	231/104	179/79	139/61

Notes:

1. For high loads long term concrete creep should be considered.
2. Use Composite Deck-Slab Strength Web Based Solutions for alternate slabs or ASD design.

3.5D FORMLOK® DOVETAIL DECK-SLAB
LIGHT WEIGHT CONCRETE (110 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
5½”	2”	20	12'-1"	13'-4"	13'-9"
		18	14'-10"	15'-7"	16'-1"
		16	15'-9"	17'-7"	18'-2"
5¾”	2¼”	20	11'-11"	13'-1"	13'-7"
		18	14'-8"	15'-4"	15'-10"
		16	15'-7"	17'-4"	17'-10"
8”	4½”	20	10'-3"	11'-5"	11'-10"
		18	12'-8"	13'-5"	13'-10"
		16	14'-4"	15'-2"	15'-8"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment ϕM_{no} (kip-ft/ft)	Shear ϕV_{no} (kip/ft)
46.2	11.18	9.48	6.78
47.2	12.69	11.69	6.78
48.3	14.26	14.04	6.78
48.5	12.57	10.13	7.09
49.5	14.13	12.42	7.09
50.6	15.75	14.70	7.09
69.1	31.09	13.86	8.37
70.1	34.56	17.73	9.86
71.2	37.85	21.67	9.86

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.) 15'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	23'-0"	25'-0"
5½"	20	281/144	206/99	178/83	154/71	134/61	116/52	87/40	65/31
	18	359/164	267/112	232/95	202/80	177/69	155/59	120/45	93/35
	16	441/184	330/126	288/106	253/90	222/77	196/67	154/51	121/39
5¾"	20	301/162	222/111	191/94	166/80	144/68	125/59	94/45	71/35
	18	382/182	284/125	247/105	215/90	188/77	165/66	128/50	99/39
	16	462/203	346/140	302/118	265/100	233/86	205/74	161/56	127/44
8"	20	409/402	300/276	259/233	224/198	194/169	168/146	126/111	94/86
	18	546/447	406/307	353/258	308/220	270/188	237/163	183/124	142/96
	16	685/490	514/336	449/283	394/241	347/206	307/178	242/135	191/105

Notes:

1. For high loads long term concrete creep should be considered.
2. Use Composite Deck-Slab Strength Web Based Solutions for alternate slabs or ASD design.

3.5D FormLok Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage: WWR (OR)	Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3): 4D 65/60BG
Normal Weight Concrete (145 pcf)					
5½	2	1.44	0.028	6x6-W1.4xW1.4	23
5¾	2¼	1.52	0.028	6x6-W1.4xW1.4	20
6	2½	1.60	0.028	6x6-W1.4xW1.4	18
6½	3	1.75	0.028	6x6-W1.4xW1.4	15
7	3½	1.91	0.032	6x6-W2.1xW2.1	15
7¼	3¾	1.98	0.034	6x6-W2.1xW2.1	15
7½	4	2.06	0.036	6x6-W2.1xW2.1	15
8	4½	2.22	0.041	6x6-W2.1xW2.1	15
Light Weight Concrete (110 pcf)					
5½	2	1.44	0.028	6x6-W1.4xW1.4	33
5¾	2¼	1.52	0.028	6x6-W1.4xW1.4	28
6	2½	1.60	0.028	6x6-W1.4xW1.4	25
6½	3	1.75	0.028	6x6-W1.4xW1.4	20
7	3½	1.91	0.032	6x6-W2.1xW2.1	20
7½	4	2.06	0.036	6x6-W2.1xW2.1	20
8	4½	2.22	0.041	6x6-W2.1xW2.1	20

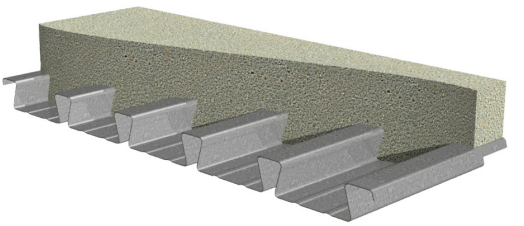
Notes:

1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

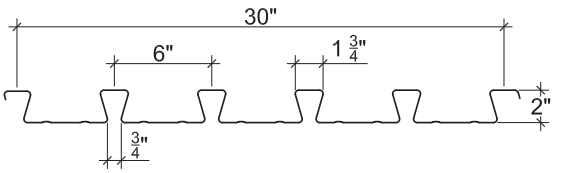
For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@bekaert.com.

2.0DS-30 FL DOVETAIL DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **UL Listed**



Nominal Dimensions



Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
22	2.2	0.0299	50	0.430	0.382	0.301	0.306	1130	1146	5068
20	2.7	0.0359	50	0.520	0.473	0.378	0.373	1417	1398	6047
18	3.6	0.0478	50	0.695	0.661	0.527	0.509	1977	1907	7949
16	4.5	0.0598	50	0.872	0.856	0.667	0.648	2501	2430	9812

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"
22	1275	1401	1613	1791	2316	2669	1315	1416	1586	1729	2833	3298
20	1785	1955	2241	2482	3252	3724	1946	2090	2330	2532	4025	4656
18	3014	3286	3743	4127	5514	6249	3553	3794	4200	4541	6926	7930
16	4534	4924	5578	6130	8315	9340	5637	5996	6599	7108	10538	11960

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI C-2017
- IAPMO UES ER-423 and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  -21, 19 or 17 gage
  -Alternative metallic and painted finishes

2.0DS-30 FL DOVETAIL DECK-SLAB
NORMAL WEIGHT CONCRETE (145 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
4"	2"	22	8'-5"	9'-4"	9'-8"
		20	9'-8"	10'-3"	10'-7"
		18	10'-8"	11'-11"	12'-4"
		16	11'-5"	13'-5"	13'-4"
5¼"	3¼"	22	7'-7"	8'-5"	8'-8"
		20	8'-8"	9'-3"	9'-7"
		18	9'-9"	10'-9"	11'-2"
		16	10'-6"	12'-1"	12'-6"
5½"	3½"	22	7'-6"	8'-3"	8'-6"
		20	8'-6"	9'-1"	9'-5"
		18	9'-8"	10'-7"	10'-11"
		16	10'-4"	11'-11"	12'-4"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment ϕM_{no} (kip-ft/ft)	Shear ϕV_{no} (kip/ft)
45.5	5.74	6.46	5.59
46.0	6.14	7.60	5.59
46.9	6.85	9.75	5.59
47.8	7.48	11.80	5.59
60.6	12.20	8.39	7.33
61.1	13.00	9.90	7.33
62.0	14.44	12.77	7.33
62.9	15.73	15.52	7.33
63.6	13.88	8.79	7.68
64.1	14.79	10.37	7.68
65.0	16.41	13.39	7.68
65.9	17.88	16.29	7.68

Notes:
1. Maximum unshored spans are based on 20 psf uniform construction live load and 150 plf concentrated construction live load.
2. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.) 10'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	18'-0"	20'-0"
4"	22	462/250	304/145	251/114	209/91	175/74	147/61	104/43	74/31
	20	552/268	367/155	304/122	255/97	215/79	182/65	132/46	96/33
	18	723/299	485/173	405/136	341/109	290/88	248/73	184/51	138/37
	16	886/327	598/189	501/148	424/119	362/96	311/79	233/56	178/40
5¼"	22	598/533	393/308	324/242	269/194	225/157	189/130	134/91	95/66
	20	718/568	476/328	395/258	330/207	278/168	236/138	171/97	124/71
	18	946/630	634/365	529/287	446/229	379/186	324/154	240/108	180/78
	16	1165/687	786/397	659/312	557/250	476/203	409/167	307/117	234/85
5½"	22	626/606	411/351	339/276	282/221	236/179	198/148	140/104	99/75
	20	752/646	499/373	414/294	346/235	291/191	247/157	179/110	130/80
	18	993/717	665/415	555/326	468/261	398/212	340/175	252/122	189/89
	16	1224/781	825/452	691/355	585/284	500/231	429/190	323/133	246/97

Notes:
1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Superimposed Load tool for alternate slabs or ASD design.

2.0DS-30 FL DOVETAIL DECK-SLAB
LIGHT WEIGHT CONCRETE (110 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
4"	2"	22	9'-4"	10'-3"	10'-7"
		20	10'-8"	11'-4"	11'-8"
		18	11'-7"	13'-2"	13'-4"
		16	12'-2"	14'-9"	14'-2"
4½"	2½"	22	8'-11"	9'-10"	10'-2"
		20	10'-3"	10'-10"	11'-3"
		18	11'-3"	12'-7"	13'-0"
		16	11'-10"	14'-2"	13'-9"
5¼"	3¼"	22	8'-5"	9'-4"	9'-8"
		20	9'-8"	10'-3"	10'-7"
		18	10'-8"	11'-11"	12'-4"
		16	11'-5"	13'-5"	13'-4"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment ϕM_{no} (kip-ft/ft)	Shear ϕV_{no} (kip/ft)
35.0	4.44	6.18	5.59
35.5	4.77	7.24	5.59
36.4	5.36	9.24	5.59
37.3	5.88	11.12	5.59
39.6	6.12	6.92	6.29
40.1	6.58	8.12	6.29
41.0	7.37	10.37	6.29
41.9	8.07	12.51	6.29
46.5	9.36	8.07	7.28
47.0	10.04	9.49	7.33
47.9	11.23	12.16	7.33
48.8	12.29	14.71	7.33

Notes:
1. Maximum unshored spans are based on 20 psf uniform construction live load and 150 plf concentrated construction live load.
2. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.) 10'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	18'-0"	20'-0"
4"	22	452/194	301/112	250/88	210/70	177/57	151/47	110/33	81/24
	20	536/208	359/120	300/94	252/76	214/61	183/50	136/35	102/26
	18	695/234	469/135	393/106	333/85	284/69	244/57	184/40	141/29
	16	845/257	573/148	481/117	409/93	350/76	302/62	229/44	177/32
4½"	22	505/267	336/154	279/121	234/97	198/79	168/65	123/45	90/33
	20	601/287	402/166	336/130	283/104	240/85	205/70	152/49	114/35
	18	780/322	527/186	441/146	374/117	319/95	274/78	206/55	158/40
	16	950/352	644/204	541/160	460/128	394/104	340/86	258/60	199/44
5¼"	22	589/408	392/236	325/186	273/149	230/121	196/99	143/70	105/51
	20	702/438	470/253	392/199	330/159	280/129	240/107	177/75	133/54
	18	915/490	618/284	518/223	438/178	375/145	322/119	242/84	185/61
	16	1118/536	758/310	637/244	542/195	464/159	401/131	304/92	235/67

Notes:
1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Superimposed Load tool for alternate slabs or ASD design.

2.0DS-30 FL Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage		
				WWR	(OR)	Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3)
						4D 65/60BG
Normal Weight Concrete (145 pcf)						
4	2	1.11	0.028	6x6-W1.4xW1.4		23
4½	2½	1.26	0.028	6x6-W1.4xW1.4		18
4¾	2¾	1.34	0.028	6x6-W1.4xW1.4		16
5	3	1.41	0.028	6x6-W1.4xW1.4		15
5¼	3¼	1.49	0.029	6x6-W2.1xW2.1		15
5½	3½	1.57	0.032	6x6-W2.1xW2.1		15
6	4	1.72	0.036	6x6-W2.1xW2.1		15
6¾	4¾	1.95	0.043	6x6-W2.9xW2.9		15
Light Weight Concrete (110 pcf)						
4	2	1.11	0.028	6X6-W1.4xW1.4		33
4½	2½	1.26	0.028	6x6-W1.4xW1.4		25
5	3	1.41	0.028	6x6-W1.4xW1.4		20
5¼	3¼	1.49	0.029	6x6-W2.1xW2.1		20
5½	3½	1.57	0.032	6x6-W2.1xW2.1		20
6	4	1.72	0.036	6x6-W2.1xW2.1		20

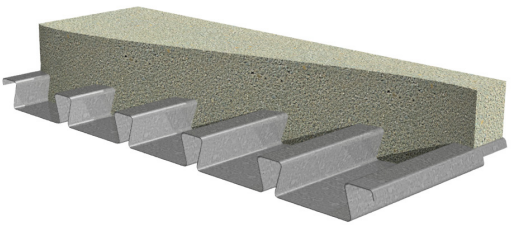
Notes:

1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

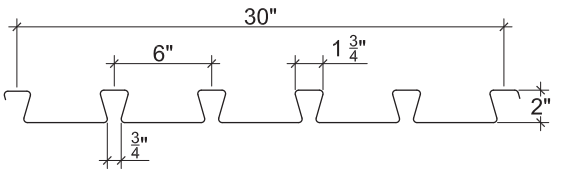
For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@bekaert.com.

2.0DF-30 FL DOVETAIL DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **UL Listed**



Nominal Dimensions



Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
20	2.7	0.0359	50	0.524	0.468	0.380	0.344	1424	1291	6047
18	3.6	0.0478	50	0.699	0.660	0.530	0.491	1987	1841	7949
16	4.5	0.0598	50	0.877	0.857	0.670	0.632	2514	2369	9812

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"
20	1785	1955	2241	2482	3252	3724	1946	2090	2330	2532	4025	4656
18	3014	3286	3743	4127	5514	6249	3553	3794	4200	4541	6926	7930
16	4534	4924	5578	6130	8315	9340	5637	5996	6599	7108	10538	11960

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI C-2017
- IAPMO UES ER-423 and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -19 or 17 gage
  - -Alternative metallic and painted finishes

2.0DF-30 FL DOVETAIL DECK-SLAB
NORMAL WEIGHT CONCRETE (145 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
4"	2"	20	9'-9"	9'-10"	10'-2"
		18	10'-8"	11'-9"	12'-2"
		16	11'-5"	13'-3"	13'-4"
5¼"	3¼"	20	8'-9"	8'-11"	9'-2"
		18	9'-10"	10'-7"	10'-11"
		16	10'-6"	12'-0"	12'-4"
5½"	3½"	20	8'-7"	8'-9"	9'-0"
		18	9'-8"	10'-5"	10'-9"
		16	10'-4"	11'-9"	12'-2"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment ϕM_{no} (kip-ft/ft)	Shear ϕV_{no} (kip/ft)
46.0	6.14	7.60	5.59
46.9	6.85	9.75	5.59
47.8	7.49	11.8	5.59
47.0	10.03	9.48	7.33
47.9	11.23	12.15	7.33
48.8	12.23	14.70	7.33
64.1	14.78	10.36	7.68
65.0	16.41	13.37	7.68
65.9	17.87	16.27	7.68

Notes:
1. Maximum unshored spans are based on 20 psf uniform construction live load and 150 plf concentrated construction live load.
2. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)							
		10'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	18'-0"	20'-0"
4"	20	552/268	367/155	304/122	255/97	215/79	182/65	132/46	96/33
	18	723/299	485/173	405/136	341/109	290/88	248/73	184/51	138/37
	16	886/327	598/189	501/148	424/119	362/96	311/79	233/56	178/40
5¼"	20	717/567	476/328	394/258	330/206	278/168	235/138	170/97	124/70
	18	945/630	634/364	529/287	446/229	378/186	324/153	240/108	180/78
	16	1164/687	785/397	658/312	557/250	475/203	408/167	307/117	234/85
5½"	20	751/645	498/373	413/294	345/235	291/191	246/157	178/110	130/80
	18	991/716	664/414	554/326	467/261	397/212	339/175	252/122	189/89
	16	1222/780	824/451	691/355	584/284	499/231	429/190	322/133	246/97

Notes:
1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Superimposed Load tool for alternate slabs or ASD design.

2.0DF-30 FL DOVETAIL DECK-SLAB
LIGHT WEIGHT CONCRETE (110 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
4"	2"	20	10'-8"	10'-10"	11'-3"
		18	11'-7"	12'-11"	13'-4"
		16	12'-2"	14'-7"	14'-2"
4½"	2½"	20	10'-3"	10'-5"	10'-9"
		18	11'-3"	12'-5"	12'-10"
		16	11'-10"	14'-0"	13'-10"
5¼"	3¼"	20	9'-9"	9'-10"	10'-2"
		18	10'-8"	11'-9"	12'-2"
		16	11'-5"	13'-3"	13'-4"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment ϕM_{no} (kip-ft/ft)	Shear ϕV_{no} (kip/ft)
35.5	4.78	7.24	5.59
36.4	5.37	9.24	5.59
37.3	5.89	11.13	5.59
40.1	6.58	8.11	6.29
41.0	7.37	10.37	6.29
41.9	8.08	12.51	6.29
47.0	10.03	9.48	7.33
47.9	11.23	12.15	7.33
48.8	12.28	14.70	7.33

Notes:
1. Maximum unshored spans are based on 20 psf uniform construction live load and 150 plf concentrated construction live load.
2. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)							
		10'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	18'-0"	20'-0"
4"	20	536/208	359/120	300/95	253/76	214/61	183/50	136/35	102/26
	18	695/234	469/135	393/106	333/85	284/69	245/57	184/40	141/29
	16	845/257	573/148	482/117	409/93	350/76	303/62	230/44	177/32
4½"	20	601/287	402/166	335/130	283/104	240/85	205/70	152/49	114/35
	18	780/322	526/186	441/146	374/117	319/95	274/78	206/55	158/40
	16	950/352	644/204	541/160	460/128	394/104	340/86	258/60	199/44
5¼"	20	701/438	470/253	392/199	330/159	280/129	239/107	177/75	133/54
	18	914/490	617/284	517/223	438/178	374/145	322/119	242/84	185/61
	16	1117/536	758/310	637/244	541/195	464/159	400/131	304/92	235/67

Notes:
1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Superimposed Load tool for alternate slabs or ASD design.

2.0DF-30 FL Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage: WWR (OR)	Recommended Reinforcing for Temperature and Shrinkage: Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3) 4D 65/60BG
Normal Weight Concrete (145 pcf)					
4	**2**	1.11	0.028	6x6-W1.4xW1.4	23
4½	**2½**	1.26	0.028	6x6-W1.4xW1.4	18
4¾	**2¾**	1.34	0.028	6x6-W1.4xW1.4	16
5	**3**	1.41	0.028	6x6-W1.4xW1.4	15
5¼	**3¼**	1.49	0.029	6x6-W2.1xW2.1	15
5½	**3½**	1.57	0.032	6x6-W2.1xW2.1	15
6	**4**	1.72	0.036	6x6-W2.1xW2.1	15
6¾	**4¾**	1.95	0.043	6x6-W2.9xW2.9	15
Light Weight Concrete (110 pcf)					
4	**2**	1.11	0.028	6X6-W1.4xW1.4	33
4½	**2½**	1.26	0.028	6x6-W1.4xW1.4	25
5	**3**	1.41	0.028	6x6-W1.4xW1.4	20
5¼	**3¼**	1.49	0.029	6x6-W2.1xW2.1	20
5½	**3½**	1.57	0.032	6x6-W2.1xW2.1	20
6	**4**	1.72	0.036	6x6-W2.1xW2.1	20

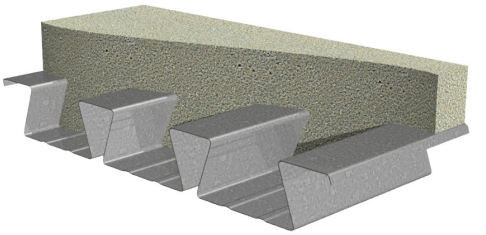
Notes:

1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

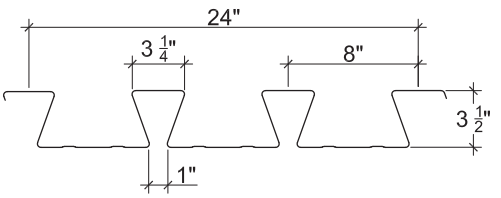
For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@bekaert.com.

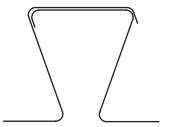
3.5DS-24 FL DOVETAIL DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **UL Listed**



Nominal Dimensions





Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
20	3.4	0.0359	50	1.951	1.805	0.714	0.757	2677	2840	5706
18	4.5	0.0478	50	2.681	2.505	1.052	1.108	3947	4156	10356
16	5.6	0.0598	50	3.421	3.243	1.414	1.505	5301	5645	14868

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"
20	1315	1507	1669	1812	2580	2953	1301	1450	1576	1687	3044	3515
18	2241	2553	2815	3046	4363	4960	2435	2695	2915	3108	5269	6048
16	3392	3843	4223	4557	6567	7425	3924	4319	4652	4945	8048	9192

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI C-2017
- IAPMO UES ER-423 and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  -19 or 17 gage
  -Alternative metallic and painted finishes

3.5DS-24 FL DOVETAIL DECK-SLAB
NORMAL WEIGHT CONCRETE (145 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
5½"	2"	20	12'-10"	13'-4"	13'-10"
		18	14'-4"	16'-2"	16'-6"
		16	15'-2"	18'-8"	17'-6"
5¾"	2¼"	20	12'-7"	13'-1"	13'-6"
		18	14'-2"	15'-10"	16'-4"
		16	15'-0"	18'-5"	17'-4"
6"	2½"	20	12'-4"	12'-10"	13'-3"
		18	14'-0"	15'-7"	16'-1"
		16	14'-10"	18'-1"	17'-2"

Composite Deck-Slab Properties

Concrete + Deck	Deflection	Moment	Shear
	$I_d = (I_{cr}+I_u)/2$	ϕM_{no}	ϕV_{no}
(psf)	(in^4/ft)	(kip-ft/ft)	(kip/ft)
58.6	14.12	12.22	6.44
59.7	15.73	15.68	6.44
60.8	17.27	18.38	6.44
61.6	15.95	12.68	6.73
62.7	17.72	16.30	6.73
63.8	19.36	19.79	6.73
64.7	17.93	13.17	7.02
65.8	19.89	16.93	7.02
66.9	21.69	20.55	7.02

Notes:
1. Maximum unshored spans are based on 20 psf uniform construction live load and 150 plf concentrated construction live load.
2. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)							
		15'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	23'-0"	25'-0"
5½"	20	364/182	267/125	231/105	200/89	173/77	151/66	114/50	86/39
	18	485/203	362/139	315/117	275/100	242/85	212/74	165/56	129/43
	16	580/223	435/153	380/129	334/110	294/94	260/81	204/62	162/48
5¾"	20	376/206	277/141	239/119	207/101	179/87	156/75	117/57	88/44
	18	504/229	375/157	327/132	285/112	250/96	220/83	171/63	133/49
	16	627/250	471/172	412/145	361/123	319/105	282/91	222/69	176/54
6"	20	390/232	286/159	247/134	214/114	185/97	161/84	121/64	90/50
	18	522/257	389/176	339/149	296/126	259/108	228/93	177/71	137/55
	16	650/280	488/192	427/162	375/138	330/118	292/102	230/77	182/60

Notes:
1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Superimposed Load tool for alternate slabs or ASD design.

3.5DS-24 FL DOVETAIL DECK-SLAB
LIGHT WEIGHT CONCRETE (110 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
5½"	2"	20	14'-2"	14'-10"	15'-3"
		18	15'-3"	17'-10"	17'-7"
		16	16'-2"	19'-10"	18'-8"
5¾"	2¼"	20	14'-0"	14'-6"	15'-0"
		18	15'-1"	17'-7"	17'-5"
		16	16'-0"	19'-8"	18'-6"
8"	4½"	20	12'-2"	12'-8"	13'-1"
		18	13'-10"	15'-4"	15'-10"
		16	14'-8"	17'-10"	17'-0"

Composite Deck-Slab Properties

Concrete + Deck	Deflection	Moment	Shear
	$I_d = (I_{cr}+I_u)/2$	ϕM_{no}	ϕV_{no}
(psf)	(in^4/ft)	(kip-ft/ft)	(kip/ft)
45.3	10.97	11.39	6.44
46.4	12.49	14.08	6.44
47.5	13.99	16.77	6.44
47.6	12.33	12.10	6.73
48.7	13.90	14.97	6.73
49.8	15.44	17.59	6.73
68.2	30.55	16.76	8.62
69.3	34.03	21.50	9.37
70.4	37.15	26.05	9.37

Notes:
1. Maximum unshored spans are based on 20 psf uniform construction live load and 150 plf concentrated construction live load.
2. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)							
		15'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	23'-0"	25'-0"
5½"	20	350/142	260/97	226/82	198/69	173/59	152/51	117/39	91/30
	18	444/161	333/111	291/93	256/79	225/68	199/58	157/44	124/34
	16	539/181	407/124	357/104	314/89	278/76	247/66	196/50	157/39
5¾"	20	373/159	277/109	241/92	211/78	184/67	162/58	125/44	97/34
	18	473/180	355/123	311/104	273/88	240/75	213/65	167/49	133/38
	16	565/199	427/137	374/115	330/98	292/84	259/72	206/55	165/43
8"	20	514/395	382/271	332/228	289/194	253/166	222/144	171/109	132/85
	18	681/440	511/302	447/254	393/216	346/185	306/160	241/122	192/95
	16	841/481	636/330	558/278	492/236	436/202	387/175	309/133	248/103

Notes:
1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Superimposed Load tool for alternate slabs or ASD design.

3.5DS-24 FL Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage		
				WWR	(OR)	Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3)
						4D 65/60BG
Normal Weight Concrete (145 pcf)						
5½	2	1.41	0.028	6x6-W1.4xW1.4		23
5¾	2¼	1.49	0.028	6x6-W1.4xW1.4		20
6	2½	1.56	0.028	6x6-W1.4xW1.4		18
6½	3	1.72	0.028	6x6-W1.4xW1.4		15
7	3½	1.87	0.032	6x6-W2.1xW2.1		15
7¼	3¾	1.95	0.034	6x6-W2.1xW2.1		15
7½	4	2.03	0.036	6x6-W2.1xW2.1		15
8	4½	2.18	0.041	6x6-W2.1xW2.1		15
Light Weight Concrete (110 pcf)						
5½	2	1.41	0.028	6x6-W1.4xW1.4		33
5¾	2¼	1.49	0.028	6x6-W1.4xW1.4		28
6	2½	1.56	0.028	6x6-W1.4xW1.4		25
6½	3	1.72	0.028	6x6-W1.4xW1.4		20
7	3½	1.87	0.032	6x6-W2.1xW2.1		20
7½	4	2.03	0.036	6x6-W2.1xW2.1		20
8	4½	2.18	0.041	6x6-W2.1xW2.1		20

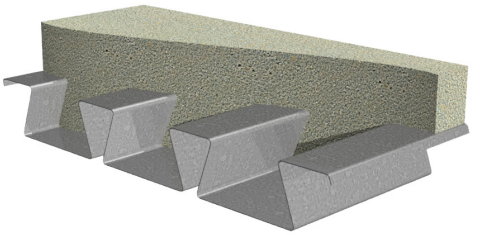
Notes:

1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

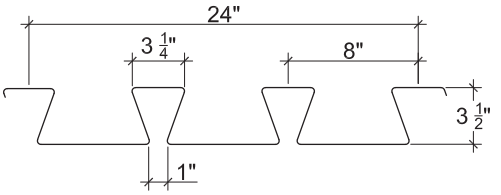
For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@bekaert.com.

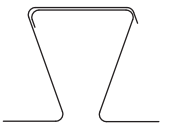
3.5DF-24 FL DOVETAIL DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **UL Listed**



Nominal Dimensions





Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
18	4.5	0.0478	50	2.688	2.496	1.055	0.935	3957	3507	10356
16	5.6	0.0598	50	3.430	3.256	1.417	1.289	5314	4835	14868

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"
18	2241	2553	2815	3046	4363	4960	2435	2695	2915	3108	5269	6048
16	3392	3843	4223	4557	6567	7425	3924	4319	4652	4945	8048	9192

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI C-2017
- IAPMO UES ER-423 and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -17 gage
  - -Alternative metallic and painted finishes

3.5DF-24 FL DOVETAIL DECK-SLAB
NORMAL WEIGHT CONCRETE (145 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
5½”	2”	18	14'-4"	14'-10"	15'-4"
		16	15'-2"	17'-4"	17'-6"
5¾”	2¼”	18	14'-2"	14'-7"	15'-1"
		16	15'-0"	17'-0"	17'-4"
6”	2½”	18	14'-0"	14'-4"	14'-9"
		16	14'-10"	16'-9"	17'-2"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment ϕM_{no} (kip-ft/ft)	Shear ϕV_{no} (kip/ft)
59.7	15.73	15.68	6.44
60.8	17.27	18.37	6.44
62.7	17.72	16.29	6.73
63.8	19.36	19.77	6.73
65.8	19.88	16.91	7.02
66.9	21.69	20.53	7.02

Notes:
1. Maximum unshored spans are based on 20 psf uniform construction live load and 150 plf concentrated construction live load.
2. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)							
		15'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	23'-0"	25'-0"
5½"	18	485/203	362/139	315/117	275/100	241/85	212/74	165/56	129/43
	16	580/223	435/153	380/129	334/110	294/94	260/81	204/62	162/48
5¾"	18	503/229	375/157	326/132	285/112	250/96	220/83	171/63	133/49
	16	626/250	470/172	411/145	361/123	318/105	282/91	222/69	176/54
6"	18	522/257	389/176	338/149	295/126	259/108	227/93	176/71	137/55
	16	649/280	487/192	426/162	374/138	330/118	292/102	230/77	182/60

Notes:
1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Superimposed Load tool for alternate slabs or ASD design.

3.5DF-24 FL DOVETAIL DECK-SLAB
LIGHT WEIGHT CONCRETE (110 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
5½”	2”	18	15'-4"	16'-5"	17'-0"
		16	16'-2"	19'-2"	18'-8"
5¾”	2¼”	18	15'-1"	16'-2"	16'-8"
		16	16'-0"	18'-10"	18'-6"
8”	4½”	18	13'-11"	14'-1"	14'-7"
		16	14'-8"	16'-6"	17'-0"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment ϕM_{no} (kip-ft/ft)	Shear ϕV_{no} (kip/ft)
46.4	12.49	14.07	6.44
47.5	13.99	16.76	6.44
48.7	13.90	14.96	6.73
49.8	15.44	17.58	6.73
69.3	34.01	21.47	9.37
70.4	37.13	26.01	9.37

Notes:
1. Maximum unshored spans are based on 20 psf uniform construction live load and 150 plf concentrated construction live load.
2. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)							
		15'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	23'-0"	25'-0"
5½"	18	444/161	333/111	291/93	256/79	225/68	199/58	157/44	124/34
	16	539/181	407/124	356/104	314/89	278/76	247/66	196/50	157/39
5¾"	18	473/180	355/123	311/104	273/88	240/75	213/65	167/49	133/38
	16	565/199	426/137	374/115	329/98	291/84	259/72	206/55	165/43
8"	18	680/440	511/302	446/254	392/216	346/185	306/160	241/122	191/95
	16	840/480	635/330	557/278	491/236	435/202	387/175	308/133	248/103

Notes:
1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Superimposed Load tool for alternate slabs or ASD design.

3.5DF-24 FL DOVETAIL DECK-SLAB

3.5DF-24 FL Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage: WWR (OR)	Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3): 4D 65/60BG
Normal Weight Concrete (145 pcf)					
5½	2	1.41	0.028	6x6-W1.4xW1.4	23
5¾	2¼	1.49	0.028	6x6-W1.4xW1.4	20
6	2½	1.56	0.028	6x6-W1.4xW1.4	18
6½	3	1.72	0.028	6x6-W1.4xW1.4	15
7	3½	1.87	0.032	6x6-W2.1xW2.1	15
7¼	3¾	1.95	0.034	6x6-W2.1xW2.1	15
7½	4	2.03	0.036	6x6-W2.1xW2.1	15
8	4½	2.18	0.041	6x6-W2.1xW2.1	15
Light Weight Concrete (110 pcf)					
5½	2	1.41	0.028	6x6-W1.4xW1.4	33
5¾	2¼	1.49	0.028	6x6-W1.4xW1.4	28
6	2½	1.56	0.028	6x6-W1.4xW1.4	25
6½	3	1.72	0.028	6x6-W1.4xW1.4	20
7	3½	1.87	0.032	6x6-W2.1xW2.1	20
7½	4	2.03	0.036	6x6-W2.1xW2.1	20
8	4½	2.18	0.041	6x6-W2.1xW2.1	20

Notes:

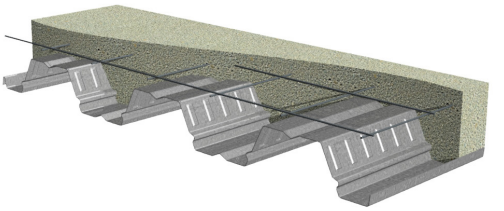
1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@bekaert.com.

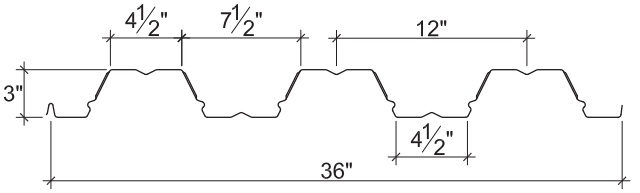
PLW3™-36/W3-36 FORMLOK® COMPOSITE DECKS
GRADE 50 STEEL

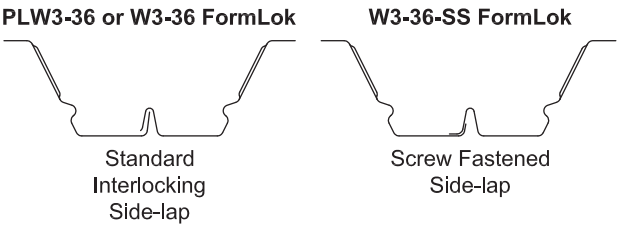
W3 FORMLOK DECKS

- **PLW3-36 FormLok Deck used with PunchLok® II System**
- **W3-36 FormLok Deck used with TSWs or BPs**
- **W3-36-SS FormLok Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øVn (lb/ft)
22	1.9	0.0299	50	0.736	0.730	0.393	0.410	2074
20	2.3	0.0359	50	0.907	0.899	0.510	0.528	3587
18	2.9	0.0478	50	1.213	1.211	0.752	0.768	6515
16	3.5	0.0598	50	1.516	1.516	0.968	0.966	9422

Design Reactions at Supports Based on Web Crippling, øRn (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
22	533	586	675	749	1157	1351	503	542	607	662	1341	1581
20	754	827	947	1049	1622	2010	763	819	913	992	1914	2405
18	1293	1410	1606	1771	2744	3436	1435	1532	1696	1834	3315	4218
16	1966	2135	2419	2658	4134	5130	2321	2469	2718	2927	5066	6392

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer bottom optional
- ASTM A1008 SS GR50 Min. with gray primer bottom
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI C-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Factory Vent Tabs

PLW3™-36/W3-36 FORMLOK® DECK-SLABS
NORMAL WEIGHT CONCRETE (145 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
5"	2"	22	10'-1"	10'-6"	11'-0"
		20	11'-8"	12'-3"	12'-8"
		18	12'-7"	14'-10"	14'-8"
		16	13'-3"	16'-6"	15'-6"
6½"	3½"	22	8'-10"	8'-2"	9'-4"
		20	10'-3"	10'-9"	11'-2"
		18	11'-7"	13'-1"	13'-6"
		16	12'-3"	14'-8"	14'-4"
7½"	4½"	22	8'-3"	7'-2"	8'-2"
		20	9'-7"	10'-0"	10'-4"
		18	11'-1"	12'-2"	12'-7"
		16	11'-9"	13'-8"	13'-9"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment ϕM_{no} (kip-ft/ft)	Shear ϕV_{no} (kip/ft)
44.2	7.52	5.13	4.73
44.6	7.98	6.03	5.75
45.2	8.83	7.74	5.75
45.8	9.61	9.37	5.75
62.3	15.90	6.76	5.99
62.7	16.81	7.96	7.35
63.3	18.50	10.25	8.28
63.9	20.05	12.46	8.28
74.4	24.07	7.92	6.94
74.8	25.40	9.35	8.29
75.4	27.87	12.07	10.17
76.0	30.15	14.70	10.17

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.) 8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	16'-0"
5"	22	587/641	453/450	357/328	285/246	231/190	189/149	156/119	107/80
	20	700/681	541/478	428/348	345/261	281/201	231/158	192/127	134/85
	18	912/753	709/529	564/385	457/289	375/223	311/175	261/140	187/94
	16	1116/820	870/575	694/419	564/315	465/242	388/191	327/153	237/102
6½"	22	769/1357	592/953	465/694	372/522	300/402	245/316	201/253	136/169
	20	919/1435	711/1008	561/734	451/552	367/425	301/334	249/267	173/179
	18	1205/1578	936/1108	744/808	601/607	493/467	409/367	342/294	244/197
	16	1480/1711	1153/1202	919/876	746/658	615/507	512/398	431/319	312/213
7½"	22	900/2054	693/1442	544/1051	434/790	350/608	285/478	234/383	158/256
	20	1078/2168	833/1522	658/1110	528/834	429/642	352/505	291/404	202/271
	18	1418/2379	1101/1670	875/1218	707/915	580/704	481/554	402/443	286/297
	16	1746/2573	1361/1807	1085/1317	880/990	725/762	604/599	508/480	368/321

Notes:

1. For high loads long term concrete creep should be considered.
2. Use Composite Deck-Slab Strength Web Based Solutions for alternate slabs or ASD design.

PLW3™-36/W3-36 FORMLOK® DECK-SLABS
LIGHT WEIGHT CONCRETE (110 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
5"	2"	22	11'-2"	11'-9"	12'-2"
		20	12'-6"	13'-6"	13'-11"
		18	13'-5"	16'-4"	15'-8"
		16	14'-1"	17'-7"	16'-6"
5½"	2½"	22	10'-8"	11'-3"	11'-8"
		20	12'-2"	12'-11"	13'-4"
		18	13'-0"	15'-8"	15'-3"
		16	13'-9"	17'-1"	16'-1"
6¼"	3¼"	22	10'-0"	10'-6"	10'-11"
		20	11'-8"	12'-3"	12'-7"
		18	12'-6"	14'-9"	14'-8"
		16	13'-3"	16'-5"	15'-6"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment ϕM_{no} (kip-ft/ft)	Shear ϕV_{no} (kip/ft)
34.0	5.73	4.91	4.01
34.4	6.14	5.76	5.37
35.0	6.88	7.35	5.75
35.6	7.56	8.88	5.75
38.6	7.49	5.42	4.31
39.0	8.01	6.35	5.67
39.6	8.95	8.11	6.55
40.2	9.80	9.79	6.55
45.4	10.75	6.22	4.79
45.8	11.48	7.31	6.15
46.4	12.79	9.35	7.83
47.0	13.99	11.30	7.83

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.) 8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	16'-0"
5"	22	573/489	444/343	352/250	284/188	232/145	191/114	159/91	112/61
	20	678/524	527/368	419/268	339/201	278/155	231/122	193/97	138/65
	18	877/587	684/412	546/300	444/225	366/174	306/136	258/109	187/73
	16	1066/645	833/453	667/330	544/248	450/191	377/150	319/120	234/80
5½"	22	630/639	488/448	387/327	311/245	254/189	210/148	174/119	122/79
	20	747/683	580/480	461/349	373/262	306/202	253/159	212/127	151/85
	18	966/763	753/536	601/391	488/293	403/226	336/177	283/142	206/95
	16	1175/836	918/587	734/428	599/321	495/247	415/195	351/156	257/104
6¼"	22	723/917	560/644	443/469	356/353	291/271	240/213	199/171	139/114
	20	858/979	666/688	529/501	427/376	350/290	290/228	243/182	173/122
	18	1112/1092	867/767	692/559	562/420	463/323	386/254	325/203	236/136
	16	1355/1194	1059/838	847/611	690/459	571/353	478/278	404/222	296/149

Notes:

1. For high loads long term concrete creep should be considered.
2. Use Composite Deck-Slab Strength Web Based Solutions for alternate slabs or ASD design.

PLW3-36/W3-36 FormLok Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage: WWR	(OR)	Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3): 4D 65/60BG
Normal Weight Concrete (145 pcf)						
5	**2**	1.08	0.028	6x6-W1.4xW1.4		23
5½	**2½**	1.24	0.028	6x6-W1.4xW1.4		18
6	**3**	1.39	0.028	6x6-W1.4xW1.4		15
6½	**3½**	1.54	0.032	6x6-W2.1xW2.1		15
7½	**4½**	1.85	0.041	6x6-W2.1xW2.1		15
Light Weight Concrete (110 pcf)						
5	**2**	1.08	0.028	6x6-W1.4xW1.4		33
5½	**2½**	1.24	0.028	6x6-W1.4xW1.4		25
6¼	**3¼**	1.47	0.029	6x6-W2.1xW2.1		20
7¼	**4¼**	1.78	0.038	6x6-W2.1xW2.1		20

Notes:

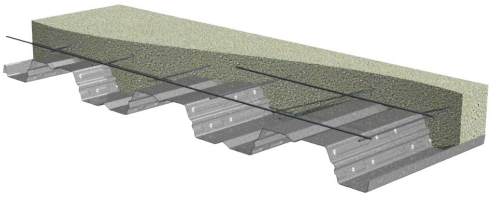
1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@beckaert.com

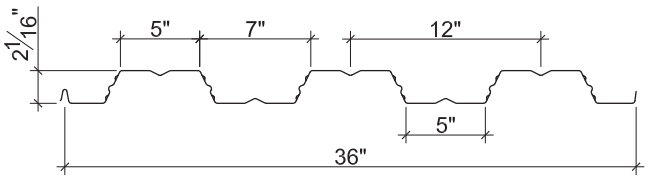
PLW2™-36/W2-36 FORMLOK® COMPOSITE DECKS
GRADE 50 STEEL

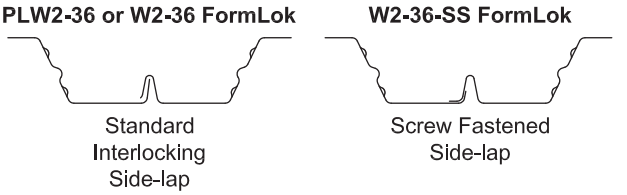
W2 FORMLOK DECKS

- **PLW2-36 FormLok Deck used with PunchLok® II System**
- **W2-36 FormLok Deck used with TSWs or BPs**
- **W2-36-SS FormLok Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øVn (lb/ft)
22	1.8	0.030	50	0.341	0.339	0.246	0.256	2582
20	2.1	0.036	50	0.422	0.419	0.323	0.333	3715
18	2.7	0.047	50	0.564	0.562	0.471	0.481	4900
16	3.3	0.059	50	0.708	0.708	0.623	0.638	6132

Design Reactions at Supports Based on Web Crippling, øRn (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	6"
22	574	631	726	806	1178	1354	575	619	694	756	1421	1647
20	805	882	1011	1120	1649	1887	857	920	1025	1114	2016	2328
18	1319	1439	1639	1808	2689	3058	1515	1619	1793	1939	3342	3838
16	2005	2177	2468	2712	4071	4604	2439	2595	2857	3078	5116	5844

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer bottom optional
- ASTM A1008 SS GR50 Min. with gray primer bottom
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI C-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Factory Vent Tabs

PLW2™-36/W2-36 FORMLOK® DECK-SLABS
NORMAL WEIGHT CONCRETE (145 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
4"	2"	22	7'-11"	9'-0"	9'-4"
		20	9'-5"	10'-3"	10'-7"
		18	10'-7"	12'-4"	12'-7"
		16	11'-4"	14'-1"	13'-3"
5½"	3½"	22	6'-11"	7'-10"	8'-1"
		20	8'-2"	9'-0"	9'-3"
		18	9'-4"	10'-9"	11'-1"
		16	10'-1"	12'-4"	12'-2"
6½"	4½"	22	6'-5"	7'-3"	7'-6"
		20	7'-7"	8'-4"	8'-7"
		18	8'-10"	10'-0"	10'-4"
		16	9'-6"	11'-6"	11'-7"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment ϕM_{no} (kip-ft/ft)	Shear ϕV_{no} (kip/ft)
38.1	4.17	3.65	4.60
38.4	4.44	4.28	4.60
39.0	4.91	5.39	4.60
39.6	5.37	6.53	4.60
56.2	10.38	5.22	5.81
56.5	11.02	6.16	6.83
57.1	12.10	7.79	7.00
57.7	13.18	9.49	7.00
68.3	16.86	6.64	6.72
68.6	17.86	7.84	7.73
69.2	19.55	9.98	8.79
69.8	21.23	11.60	8.81

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.) 6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	14'-0"
4"	22	765/843	550/530	410/355	314/249	246/182	195/136	157/105	103/66
	20	905/899	653/566	489/379	377/266	296/194	237/145	191/112	128/70
	18	1150/993	832/625	626/418	485/294	384/214	309/161	252/124	173/78
	16	1402/1086	1018/684	768/458	597/321	474/234	384/176	315/135	218/85
5½"	22	1093/2099	785/1322	585/885	448/622	350/453	277/340	222/262	145/165
	20	1300/2229	937/1404	701/940	540/660	424/481	339/361	274/278	183/175
	18	1662/2448	1203/1542	905/1033	700/725	554/528	446/397	364/306	249/192
	16	2039/2666	1480/1679	1117/1124	868/790	689/575	558/432	458/333	318/209
6½"	22	1392/3411	1001/2148	747/1439	573/1010	449/736	356/553	286/426	188/268
	20	1660/3612	1198/2275	898/1524	692/1070	545/780	436/586	353/451	237/284
	18	2133/3954	1545/2490	1163/1668	902/1171	715/854	576/641	471/494	324/311
	16	2493/4295	1810/2705	1366/1812	1061/1272	844/927	683/697	560/536	389/338

Notes:

1. For high loads long term concrete creep should be considered.
2. Use Composite Deck-Slab Strength Web Based Solutions for alternate slabs or ASD design.

PLW2™-36/W2-36 FORMLOK® DECK-SLABS
LIGHT WEIGHT CONCRETE (110 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
4"	2"	22	8'-8"	9'-11"	10'-2"
		20	10'-4"	11'-3"	11'-8"
		18	11'-6"	13'-6"	13'-5"
		16	12'-1"	15'-0"	14'-2"
4½"	2½"	22	8'-3"	9'-5"	9'-9"
		20	9'-10"	10'-9"	11'-2"
		18	11'-0"	12'-11"	13'-0"
		16	11'-8"	14'-7"	13'-8"
5¼"	3¼"	22	7'-9"	8'-10"	9'-2"
		20	9'-3"	10'-2"	10'-6"
		18	10'-5"	12'-2"	12'-5"
		16	11'-2"	13'-11"	13'-2"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment ϕM_{no} (kip-ft/ft)	Shear ϕV_{no} (kip/ft)
29.3	3.21	3.49	4.04
29.6	3.45	4.08	4.60
30.2	3.85	5.10	4.60
30.8	4.24	6.15	4.60
33.9	4.47	3.98	4.32
34.2	4.80	4.66	5.33
34.8	5.34	5.84	5.36
35.4	5.87	7.05	5.36
40.8	6.93	4.76	4.78
41.1	7.42	5.59	5.79
41.7	8.24	7.03	6.58
42.3	9.04	8.51	6.58

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.) 6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	14'-0"
4"	22	739/649	534/409	400/274	309/192	243/140	195/105	158/81	107/51
	20	871/698	630/439	474/294	367/206	290/150	234/113	191/87	130/54
	18	1097/779	796/490	601/328	467/230	372/168	301/126	247/97	172/61
	16	1330/858	967/540	732/361	570/254	455/185	369/139	304/107	214/67
4½"	22	843/904	609/569	456/381	352/268	277/195	222/146	180/113	121/71
	20	994/970	720/611	541/409	419/287	331/209	267/157	217/121	149/76
	18	1256/1080	912/680	688/455	535/320	425/233	344/175	282/135	196/85
	16	1524/1187	1109/747	839/500	654/351	521/256	423/192	349/148	245/93
5¼"	22	1008/1402	728/883	546/591	421/415	331/302	265/227	215/175	145/110
	20	1192/1502	862/945	649/633	502/445	397/324	320/243	261/187	178/118
	18	1511/1668	1097/1050	828/703	643/494	512/360	414/270	340/208	236/131
	16	1839/1829	1338/1152	1012/771	789/542	629/395	511/296	421/228	296/144

Notes:

1. For high loads long term concrete creep should be considered.
2. Use Composite Deck-Slab Strength Web Based Solutions for alternate slabs or ASD design.

PLW2-36/W2-36 FormLok Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage: WWR (OR)	Recommended Reinforcing for Temperature and Shrinkage: Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3) 4D 65/60BG
Normal Weight Concrete (145 pcf)					
4	**2**	0.93	0.028	6x6-W1.4xW1.4	23
4½	**2½**	1.08	0.028	6x6-W1.4xW1.4	18
5	**3**	1.24	0.028	6x6-W1.4xW1.4	15
5½	**3½**	1.39	0.032	6x6-W2.1xW2.1	15
6½	**4½**	1.70	0.041	6x6-W2.1xW2.1	15
Light Weight Concrete (110 pcf)					
4	**2**	0.93	0.028	6x6-W1.4xW1.4	33
4½	**2½**	1.08	0.028	6x6-W1.4xW1.4	25
5¼	**3¼**	1.31	0.029	6x6-W2.1xW2.1	20
6¼	**4¼**	1.62	0.038	6x6-W2.1xW2.1	20

Notes:

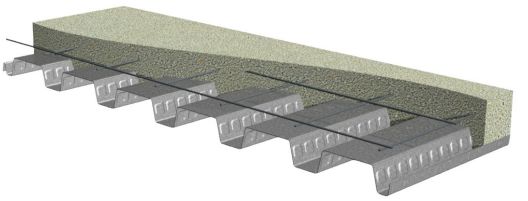
1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@beckaert.com

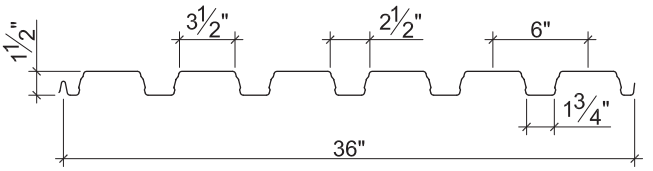
PLB™-36/B-36 FORMLOK® COMPOSITE DECKS
GRADE 50 STEEL

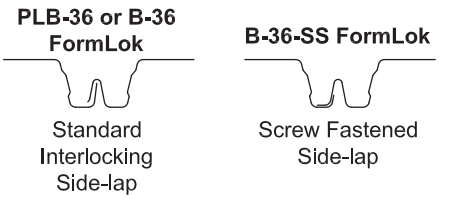
B FORMLOK DECKS

- **PLB-36 FormLok Deck used with PunchLok® II System**
- **B-36 FormLok Deck used with TSWs or BPs**
- **B-36-SS FormLok Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øVn (lb/ft)
22	1.9	0.0299	50	0.178	0.192	0.176	0.188	4085
20	2.3	0.0359	50	0.219	0.231	0.230	0.237	4894
18	2.9	0.0478	50	0.302	0.306	0.314	0.331	6481
16	3.5	0.0598	50	0.381	0.381	0.399	0.410	8059

Design Reactions at Supports Based on Web Crippling, øRn (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"
22	1301	1430	1645	1779	2318	2484	1366	1472	1648	1757	2876	3097
20	1817	1991	2282	2461	3256	3479	2014	2162	2410	2562	4081	4383
18	3062	3338	3801	4080	5524	5874	3653	3902	4318	4569	7010	7493
16	4599	4994	5658	6049	8336	8828	5775	6144	6761	7125	10656	11345

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer bottom optional
- ASTM A1008 SS GR50 Min. with gray primer bottom
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI C-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Factory Vent Tabs

PLB™-36/B-36 FORMLOK® DECK-SLABS
NORMAL WEIGHT CONCRETE (145 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
3½"	2"	22	6'-8"	7'-10"	7'-11"
		20	7'-11"	9'-2"	9'-5"
		18	9'-0"	10'-9"	11'-2"
		16	9'-8"	11'-11"	11'-9"
5"	3½"	22	5'-9"	6'-9"	6'-10"
		20	6'-10"	7'-11"	8'-1"
		18	7'-10"	9'-4"	9'-7"
		16	8'-5"	10'-4"	10'-5"
6"	4½"	22	5'-5"	6'-3"	6'-4"
		20	6'-4"	7'-3"	7'-6"
		18	7'-4"	8'-7"	8'-11"
		16	7'-11"	9'-7"	9'-9"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment ϕM_{no} (kip-ft/ft)	Shear ϕV_{no} (kip/ft)
32.5	2.68	2.81	3.02
32.9	2.88	3.28	3.02
33.5	3.22	4.14	3.02
34.1	3.53	4.94	3.02
50.6	7.74	5.00	4.93
51.0	8.28	5.87	4.93
51.6	9.24	7.52	4.93
52.2	10.10	9.09	4.93
62.7	13.32	6.58	6.41
63.1	14.20	7.76	6.41
63.7	15.79	10.00	6.41
64.3	17.22	12.14	6.41

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	12'-0"
3½"	22	1365/1830	859/937	585/542	419/341	312/228	238/160	185/117	117/67
	20	1471/1964	1008/1005	688/582	495/366	369/245	284/172	222/125	142/72
	18	1470/2202	1168/1127	878/652	635/410	476/275	368/193	290/140	189/81
	16	1469/2412	1167/1235	966/714	764/450	576/301	446/211	353/154	233/89
5"	22	2405/5288	1537/2707	1049/1566	754/986	563/661	432/464	338/338	216/195
	20	2404/5653	1817/2894	1243/1675	897/1054	672/706	518/496	408/361	264/209
	18	2404/6309	1910/3230	1582/1869	1166/1177	878/788	681/553	540/403	356/233
	16	2403/6898	1910/3531	1581/2043	1346/1287	1073/862	835/605	664/441	442/255
6"	22	3130/9096	2031/4657	1387/2695	999/1697	747/1137	575/798	451/582	290/336
	20	3129/9694	2408/4963	1649/2872	1191/1808	894/1211	690/851	545/620	355/359
	18	3128/10779	2487/5518	2060/3193	1556/2011	1173/1347	911/946	723/689	479/399
	16	3128/11760	2487/6021	2059/3484	1754/2194	1440/1470	1122/1032	894/752	597/435

Notes:

1. For high loads long term concrete creep should be considered.
2. Use Composite Deck-Slab Strength Web Based Solutions for alternate slabs or ASD design.

PLB™-36/B-36 FORMLOK® DECK-SLABS
LIGHT WEIGHT CONCRETE (110 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
3½"	2"	22	7'-3"	8'-6"	8'-7"
		20	8'-8"	10'-0"	10'-4"
		18	9'-10"	11'-9"	11'-11"
		16	10'-6"	13'-0"	12'-6"
4"	2½"	22	6'-11"	8'-1"	8'-2"
		20	8'-3"	9'-6"	9'-9"
		18	9'-4"	11'-2"	11'-6"
		16	10'-0"	12'-5"	12'-1"
4¾"	3¼"	22	6'-6"	7'-7"	7'-8"
		20	7'-9"	8'-11"	9'-1"
		18	8'-9"	10'-6"	10'-10"
		16	9'-5"	11'-7"	11'-6"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment ϕM_{no} (kip-ft/ft)	Shear ϕV_{no} (kip/ft)
25.1	2.10	2.65	3.02
25.5	2.26	3.08	3.02
26.1	2.55	3.86	3.02
26.7	2.80	4.57	3.02
29.7	3.11	3.30	3.62
30.1	3.35	3.84	3.62
30.7	3.77	4.85	3.62
31.3	4.14	5.78	3.62
36.6	5.16	4.40	4.59
37.0	5.55	5.15	4.59
37.6	6.25	6.54	4.59
38.2	6.86	7.84	4.59

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	12'-0"
3½"	22	1295/1431	818/733	559/424	402/267	301/178	231/125	182/91	117/53
	20	1480/1544	954/790	653/457	471/288	354/193	273/135	215/98	140/57
	18	1479/1740	1177/891	825/515	598/324	450/217	349/152	277/111	182/64
	16	1478/1911	1176/978	975/566	713/356	539/238	419/167	333/122	221/70
4"	22	1613/2121	1019/1086	697/628	502/395	376/265	290/186	228/135	147/78
	20	1772/2286	1193/1170	817/677	591/426	444/285	343/200	271/146	177/84
	18	1771/2575	1410/1318	1040/762	754/480	569/321	442/226	351/164	232/95
	16	1771/2825	1409/1446	1168/837	906/527	685/353	533/248	425/180	283/104
4¾"	22	2155/3522	1363/1803	933/1043	674/657	506/440	390/309	308/225	200/130
	20	2249/3792	1602/1941	1099/1123	795/707	598/474	463/332	367/242	241/140
	18	2248/4267	1790/2184	1407/1264	1022/796	771/533	600/374	477/273	318/158
	16	2248/4682	1789/2397	1483/1387	1234/873	934/585	728/411	581/299	389/173

Notes:

1. For high loads long term concrete creep should be considered.
2. Use Composite Deck-Slab Strength Web Based Solutions for alternate slabs or ASD design.

PLB-36/B-36 FormLok Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage: WWR (OR)	Recommended Reinforcing for Temperature and Shrinkage: Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3) 4D 65/60BG
Normal Weight Concrete (145 pcf)					
3½	2	0.78	0.028	6x6-W1.4xW1.4	23
4	2½	0.94	0.028	6x6-W1.4xW1.4	18
4½	3	1.09	0.028	6x6-W1.4xW1.4	15
5	3½	1.24	0.032	6x6-W2.1xW2.1	15
6	4½	1.55	0.041	6x6-W2.1xW2.1	15
Light Weight Concrete (110 pcf)					
3½	2	0.78	0.028	6x6-W1.4xW1.4	33
4	2½	0.94	0.028	6x6-W1.4xW1.4	25
4¾	3¼	1.17	0.029	6x6-W2.1xW2.1	20
5¾	4¼	1.48	0.038	6x6-W2.1xW2.1	20

Notes:

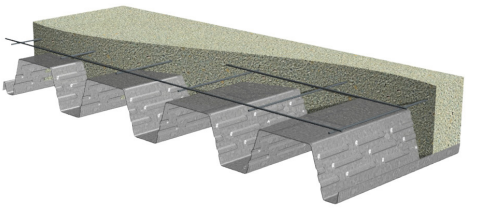
1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@beckaert.com

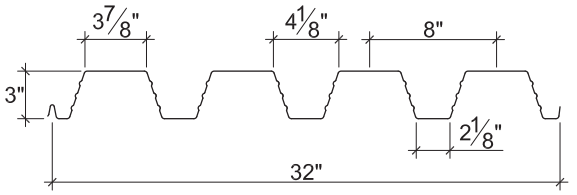
PLN3™-32/N3-32 FORMLOK® COMPOSITE DECKS
GRADE 50 STEEL

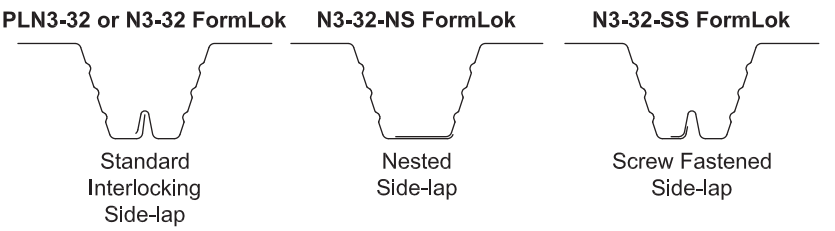
N3 FORMLOK DECKS

- **PLN3-32 FormLok Deck used with PunchLok® II System**
- **N3-32 FormLok Deck used with TSWs or BPs**
- **N3-32-NS FormLok Deck used with Side-lap Screws**
- **N3-32-SS FormLok Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øVn (lb/ft)
20	2.4	0.0359	50	0.890	0.953	0.452	0.509	5821
18	3.1	0.0478	50	1.229	1.273	0.671	0.722	10371
16	3.9	0.0598	50	1.570	1.587	0.883	0.932	13843

Design Reactions at Supports Based on Web Crippling, øRn (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
20	1215	1331	1525	1690	2584	3203	1241	1332	1485	1614	3072	3861
18	2079	2266	2581	2846	4374	5476	2325	2484	2749	2973	5315	6763
16	3155	3427	3882	4266	6586	8173	3752	3992	4393	4731	8115	10239

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer bottom optional
- ASTM A1008 SS GR50 Min. with gray primer bottom
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI C-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Factory Vent Tabs

PLN3™-32/N3-32 FORMLOK® DECK-SLABS
NORMAL WEIGHT CONCRETE (145 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
5"	2"	20	11'-4"	12'-6"	12'-11"
		18	12'-10"	14'-10"	15'-2"
		16	13'-7"	16'-10"	16'-0"
6½"	3½"	20	9'-10"	10'-11"	11'-4"
		18	11'-10"	13'-0"	13'-6"
		16	12'-6"	14'-9"	14'-8"
7½"	4½"	20	9'-1"	10'-2"	10'-6"
		18	11'-3"	12'-2"	12'-7"
		16	12'-0"	13'-9"	14'-1"

Composite Deck-Slab Properties

Concrete + Deck	Deflection	Moment	Shear
	$I_d = (I_{cr}+I_u)/2$	ϕM_{no}	ϕV_{no}
(psf)	(in^4/ft)	(kip-ft/ft)	(kip/ft)
40.7	7.31	5.65	4.68
41.4	8.12	7.20	4.68
42.2	8.87	8.67	4.68
58.9	15.64	7.78	6.88
59.6	17.32	9.97	6.88
60.4	18.86	12.05	6.88
71.0	23.86	9.33	8.55
71.7	26.37	12.00	8.55
72.5	28.66	14.54	8.55

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)							
		8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	16'-0"
5"	20	656/623	508/437	402/319	324/239	264/184	218/145	181/116	127/77
	18	850/693	661/487	526/355	426/266	350/205	291/161	244/129	175/86
	16	1033/757	805/531	642/387	522/291	431/224	359/176	303/141	220/94
6½"	20	902/1335	698/937	552/683	443/513	361/395	297/311	247/249	172/166
	18	1175/1478	913/1038	726/757	587/568	482/438	400/344	335/275	240/184
	16	1433/1609	1117/1130	891/824	724/619	596/476	497/375	419/300	304/201
7½"	20	1081/2036	836/1430	661/1042	531/783	433/603	356/474	295/380	206/254
	18	1414/2250	1099/1580	874/1152	707/865	580/666	482/524	403/419	289/281
	16	1731/2446	1349/1718	1076/1252	874/941	721/724	601/570	506/456	367/305

Notes:

1. For high loads long term concrete creep should be considered.
2. Use Composite Deck-Slab Strength Web Based Solutions for alternate slabs or ASD design.

PLN3™-32/N3-32 FORMLOK® DECK-SLABS
LIGHT WEIGHT CONCRETE (110 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
5"	2"	20	12'-7"	13'-9"	14'-2"
		18	13'-9"	16'-3"	16'-3"
		16	14'-6"	18'-1"	17'-0"
5½"	2½"	20	11'-11"	13'-2"	13'-7"
		18	13'-4"	15'-7"	15'-9"
		16	14'-1"	17'-7"	16'-6"
6¼"	3¼"	20	11'-2"	12'-4"	12'-9"
		18	12'-9"	14'-8"	15'-1"
		16	13'-6"	16'-8"	15'-10"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment ϕM_{no} (kip-ft/ft)	Shear ϕV_{no} (kip/ft)
31.5	5.67	5.35	4.68
32.2	6.38	6.79	4.68
33.0	7.03	8.13	4.68
36.1	7.43	5.99	5.37
36.8	8.34	7.60	5.37
37.6	9.16	9.11	5.37
43.0	10.75	7.04	6.49
43.7	12.05	8.96	6.49
44.5	13.21	10.75	6.49

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.) 8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	16'-0"
5"	20	631/483	490/339	390/247	316/186	259/143	215/112	180/90	129/60
	18	809/544	631/382	504/278	410/209	338/161	282/126	238/101	173/68
	16	977/599	763/421	611/307	498/230	412/177	345/139	292/111	214/74
5½"	20	705/634	548/445	436/324	353/244	289/188	240/147	201/118	144/79
	18	906/712	706/500	564/364	458/274	378/211	315/165	266/132	193/89
	16	1094/782	855/549	684/400	557/300	461/231	386/182	326/145	239/97
6¼"	20	828/917	644/644	512/469	414/353	339/271	281/213	235/171	168/114
	18	1067/1028	832/722	664/526	539/395	445/304	371/239	313/191	227/128
	16	1290/1127	1008/791	807/577	657/433	544/333	455/262	385/210	282/140

Notes:

1. For high loads long term concrete creep should be considered.
2. Use Composite Deck-Slab Strength Web Based Solutions for alternate slabs or ASD design.

PLN3-32/N3-32 FormLok Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage: WWR (OR)	Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3): 4D 65/60BG
Normal Weight Concrete (145 pcf)					
5	**2**	0.98	0.028	6x6-W1.4xW1.4	23
5½	**2½**	1.13	0.028	6x6-W1.4xW1.4	18
6	**3**	1.29	0.028	6x6-W1.4xW1.4	15
6½	**3½**	1.44	0.032	6x6-W2.1xW2.1	15
7½	**4½**	1.75	0.041	6x6-W2.1xW2.1	15
Light Weight Concrete (110 pcf)					
5	**2**	0.98	0.028	6x6-W1.4xW1.4	33
5½	**2½**	1.13	0.028	6x6-W1.4xW1.4	25
6¼	**3¼**	1.37	0.029	6x6-W2.1xW2.1	20
7¼	**4¼**	1.67	0.038	6x6-W2.1xW2.1	20

Notes:

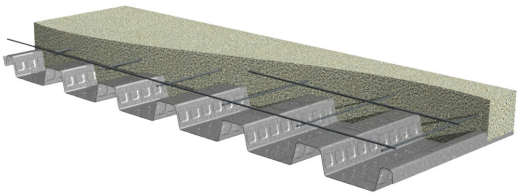
1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@beckaert.com

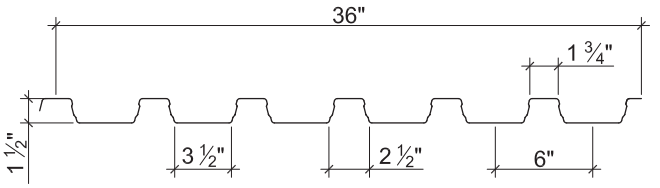
BR-36 FORMLOK® COMPOSITE DECKS
GRADE 50 STEEL

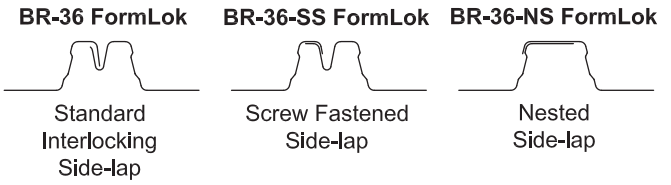
BR FORMLOK DECKS

- **BR-36 FormLok Deck used with Welded Side-laps**
- **BR-36-SS FormLok Deck used with Side-lap Screws**
- **BR-36-NS FormLok Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øVn (lb/ft)
22	1.9	0.0299	50	0.192	0.178	0.188	0.176	4085
20	2.3	0.0359	50	0.231	0.219	0.237	0.230	4894
18	2.9	0.0478	50	0.306	0.302	0.331	0.314	6481
16	3.5	0.0598	50	0.381	0.381	0.410	0.399	8059

Design Reactions at Supports Based on Web Crippling, øRn (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"
22	1301	1430	1645	1779	2318	2484	1366	1472	1648	1757	2876	3097
20	1817	1991	2282	2461	3256	3479	2014	2162	2410	2562	4081	4383
18	3062	3338	3801	4080	5524	5874	3653	3902	4318	4569	7010	7493
16	4599	4994	5658	6049	8336	8828	5775	6144	6761	7125	10656	11345

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer bottom optional
- ASTM A1008 SS GR50 Min. with gray primer bottom
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI C-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Factory Vent Tabs

Maximum Unshored Spans

Composite Deck-Slab Properties

Slab Depth			Maximum Unshored Construction Clear Span			Concrete + Deck	Deflection	Moment	Shear
Total	Topping	Deck Gage	1	2	3	(psf)	$I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	ϕM_{no} (kip-ft/ft)	ϕV_{no} (kip/ft)
3½"	2"	22	6'-8"	7'-6"	7'-9"	37.8	3.49	4.02	5.03
		20	7'-9"	8'-7"	8'-11"	38.2	3.73	4.71	5.03
		18	8'-7"	10'-0"	10'-4"	38.8	4.16	6.03	5.03
		16	9'-3"	11'-3"	11'-4"	39.4	4.55	7.27	5.03
5"	3½"	22	5'-10"	6'-7"	6'-9"	55.9	9.49	5.92	7.56
		20	6'-9"	7'-6"	7'-9"	56.3	10.11	6.99	7.81
		18	7'-8"	8'-9"	9'-0"	56.9	11.22	9.02	7.81
		16	8'-2"	9'-10"	10'-2"	57.5	12.22	10.97	7.81
6"	4½"	22	5'-5"	6'-1"	6'-4"	68.0	15.87	7.55	8.40
		20	6'-3"	7'-0"	7'-2"	68.4	16.85	8.92	9.13
		18	7'-2"	8'-1"	8'-5"	69.0	18.64	11.57	9.49
		16	7'-9"	9'-2"	9'-5"	69.6	20.27	14.11	9.49

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	12'-0"
3½"	22	1963/2383	1240/1220	847/706	610/444	456/297	351/209	276/152	177/88
	20	2310/2548	1462/1304	1001/755	723/475	543/318	419/223	331/163	215/94
	18	2470/2843	1882/1456	1292/842	937/530	706/355	548/249	435/182	288/105
	16	2470/3105	1966/1589	1567/920	1139/579	861/388	670/272	534/198	356/115
5"	22	2894/6481	1828/3318	1249/1920	899/1209	673/810	517/568	406/414	261/240
	20	3425/6900	2168/3533	1484/2044	1073/1287	805/862	622/605	491/441	320/255
	18	3835/7662	2818/3923	1936/2270	1404/1429	1059/957	822/672	653/490	432/283
	16	3834/8346	3053/4273	2368/2472	1722/1557	1302/1043	1014/732	808/534	540/309
6"	22	3693/10839	2334/5549	1596/3211	1150/2022	862/1354	664/951	522/693	337/401
	20	4380/11508	2773/5892	1901/3410	1374/2147	1033/1438	799/1010	631/736	413/426
	18	4663/12731	3618/6518	2487/3772	1805/2375	1363/1591	1059/1117	842/814	559/471
	16	4662/13840	3713/7086	3052/4100	2220/2582	1680/1730	1310/1215	1045/885	700/512

Notes:

1. For high loads long term concrete creep should be considered.
2. Use Composite Deck-Slab Strength Web Based Solutions for alternate slabs or ASD design.

Maximum Unshored Spans

Composite Deck-Slab Properties

Slab Depth		Deck	Maximum Unshored Construction Clear Span			Concrete + Deck	Deflection	Moment	Shear
Total	Topping	Gage	1	2	3	(psf)	$I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	ϕM_{no} (kip-ft/ft)	ϕV_{no} (kip/ft)
3½"	2"	22	7'-3"	8'-3"	8'-6"	29.1	2.71	3.84	5.03
		20	8'-6"	9'-5"	9'-9"	29.5	2.91	4.49	5.03
		18	9'-5"	10'-11"	11'-4"	30.1	3.27	5.71	5.03
		16	10'-1"	12'-4"	12'-1"	30.7	3.58	6.84	5.03
4"	2½"	22	6'-11"	7'-11"	8'-2"	33.7	3.92	4.42	5.87
		20	8'-1"	9'-0"	9'-4"	34.1	4.21	5.18	5.92
		18	9'-0"	10'-6"	10'-10"	34.7	4.72	6.61	5.92
		16	9'-8"	11'-9"	11'-9"	35.3	5.17	7.95	5.92
4¾"	3¼"	22	6'-7"	7'-5"	7'-8"	40.6	6.32	5.32	6.40
		20	7'-7"	8'-6"	8'-9"	41.0	6.78	6.25	7.12
		18	8'-6"	9'-10"	10'-2"	41.6	7.59	8.02	7.32
		16	9'-1"	11'-1"	11'-3"	42.2	8.31	9.70	7.32

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	12'-0"
3½"	22	1885/1847	1194/946	818/547	592/344	445/230	344/162	272/118	178/68
	20	2208/1986	1401/1017	962/588	697/370	525/248	407/174	323/127	213/73
	18	2481/2231	1789/1142	1231/661	895/416	677/278	527/195	420/142	280/82
	16	2480/2444	1976/1251	1484/724	1080/456	818/305	639/214	510/156	343/90
4"	22	2171/2674	1375/1369	942/792	681/499	512/334	396/234	313/171	205/99
	20	2549/2873	1616/1471	1110/851	804/536	606/359	470/252	373/183	246/106
	18	2917/3223	2072/1650	1426/955	1037/601	784/402	611/283	487/206	325/119
	16	2916/3528	2324/1806	1724/1045	1255/658	951/441	742/309	593/225	399/130
4¾"	22	2611/4313	1653/2208	1133/1277	819/804	616/539	476/378	376/276	246/159
	20	3076/4627	1951/2369	1340/1371	971/863	732/578	568/406	450/296	298/171
	18	3609/5185	2517/2655	1732/1536	1259/967	952/648	742/455	591/331	395/192
	16	3609/5674	2877/2905	2105/1681	1533/1058	1161/709	907/498	725/363	488/210

Notes:

1. For high loads long term concrete creep should be considered.
2. Use Composite Deck-Slab Strength Web Based Solutions for alternate slabs or ASD design.

BR-36 FormLok Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage: WWR (OR)	Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3): 4D 65/60BG
Normal Weight Concrete (145 pcf)					
3½	2	0.91	0.028	6x6-W1.4xW1.4	23
4	2½	1.07	0.028	6x6-W1.4xW1.4	18
4½	3	1.22	0.028	6x6-W1.4xW1.4	15
5	3½	1.37	0.032	6x6-W2.1xW2.1	15
6	4½	1.68	0.041	6x6-W2.1xW2.1	15
Light Weight Concrete (110 pcf)					
3½	2	0.91	0.028	6x6-W1.4xW1.4	33
4	2½	1.07	0.028	6x6-W1.4xW1.4	25
4¾	3¼	1.30	0.029	6x6-W2.1xW2.1	20
5¾	4¼	1.61	0.038	6x6-W2.1xW2.1	20

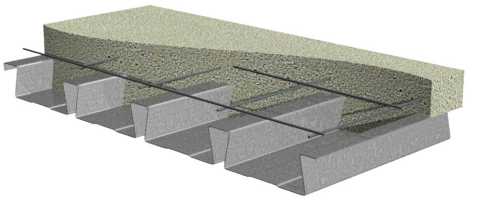
Notes:

1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

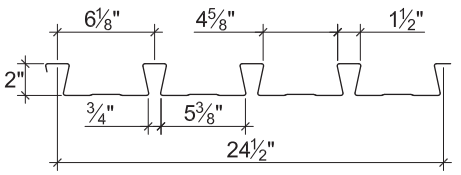
For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@beckaert.com

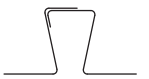
2.0D FORMLOK DOVETAIL DECK

- Enhanced 2-Coat Polyester Paint
- White Factory Primer Paint
- Galvanized Finish
- UL Listed



Nominal Dimensions





Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2Ie+Ig)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 40 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Allowable Moment M_n+/Ω (lb-ft/ft)	M_n-/Ω (lb-ft/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	2.1	0.0295	40	0.387	0.359	0.272	0.272	543	543	2896
20	2.6	0.0358	40	0.472	0.447	0.343	0.334	684	666	3498
18	3.4	0.0474	40	0.626	0.612	0.463	0.450	924	898	4584
16	4.3	0.0598	40	0.792	0.791	0.587	0.576	1172	1150	5723

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"
22	653	717	826	917	1281	1516	702	757	848	925	1567	1877
20	931	1020	1170	1296	1823	2146	1058	1136	1266	1376	2258	2690
18	1556	1697	1933	2132	3036	3544	1893	2023	2239	2422	3813	4507
16	2378	2582	2926	3215	4629	5360	3043	3237	3563	3837	5866	6880

Standard Features

- ASTM A653 SS GR 40 Min. with G90
- Standard lengths – 6'-0" to 42'-0"
- Tables conform to ANSI/SDI C-2017
- IAPMO UES ER-423 and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -19 gage
  - -Short cuts < 6'-0"
  - -Alternative metallic and painted finishes

2.0D FORMLOK® DOVETAIL DECK-SLAB
NORMAL WEIGHT CONCRETE (145 pcf)

Maximum Unshored Spans

Slab Depth		Deck Gage	Maximum Unshored Construction Clear Span		
Total	Topping		1	2	3
4”	2”	22	6'-10"	7'-11"	8'-1"
		20	7'-11"	8'-9"	9'-0"
		18	9'-6"	10'-1"	10'-5"
		16	10'-11"	11'-4"	11'-9"
5¼”	3¼”	22	6'-3"	7'-2"	7'-4"
		20	7'-2"	7'-11"	8'-2"
		18	8'-7"	9'-2"	9'-5"
		16	9'-10"	10'-4"	10'-8"
5½”	3½”	22	6'-1"	7'-0"	7'-2"
		20	7'-1"	7'-9"	8'-0"
		18	8'-5"	9'-0"	9'-3"
		16	9'-8"	10'-1"	10'-6"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment M_{no}/Ω (kip-ft/ft)	Shear V_{no}/Ω (kip/ft)
46.0	5.75	3.44	3.97
46.5	6.16	4.09	3.97
47.3	6.85	5.22	3.97
48.2	7.50	6.38	3.97
61.1	12.19	4.44	5.21
61.6	13.03	5.29	5.21
62.4	14.42	6.79	5.21
63.3	15.75	8.32	5.21
64.1	13.87	4.64	5.38
64.6	14.81	5.53	5.46
65.4	16.39	7.11	5.46
66.3	17.90	8.73	5.46

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	18'-0"	20'-0"
4”	22	229	181	145	114	91	74	61	39	22
	20	269	202	155	122	98	79	65	46	33
	18	299	224	173	136	109	88	73	51	37
	16	327	246	189	149	119	97	80	56	40
5¼”	22	293	232	185	148	119	96	77	48	27
	20	361	288	232	188	154	126	103	68	44
	18	480	386	314	258	214	178	149	105	73
	16	602	487	398	313	250	203	168	118	86
5½”	22	307	242	193	155	125	100	80	50	28
	20	378	301	242	197	161	132	108	71	46
	18	503	404	329	271	224	187	156	110	76
	16	631	510	418	346	285	231	190	134	97

Notes:

1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Strength Web Based Solutions for alternate slabs or LRFD design.

2.0D FORMLOK® DOVETAIL DECK-SLAB
LIGHT WEIGHT CONCRETE (110 pcf)

Maximum Unshored Spans

Composite Deck-Slab Properties

Slab Depth			Maximum Unshored Construction Clear Span			Concrete + Deck	Deflection	Moment	Shear
Total	Topping	Deck Gage	1	2	3	(psf)	$I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	M_{no}/Ω (kip-ft/ft)	V_{no}/Ω (kip/ft)
4”	2”	22	7'-6"	8'-8"	8'-10"	35.4	4.43	3.30	3.97
		20	8'-8"	9'-7"	9'-11"	35.9	4.79	3.90	3.97
		18	10'-6"	11'-0"	11'-5"	36.7	5.36	4.96	3.97
		16	11'-10"	12'-5"	12'-10"	37.6	5.89	6.02	3.97
4½”	2½”	22	7'-2"	8'-4"	8'-6"	40.0	6.11	3.68	4.32
		20	8'-4"	9'-3"	9'-6"	40.5	6.59	4.36	4.47
		18	10'-1"	10'-8"	11'-0"	41.3	7.36	5.55	4.47
		16	11'-6"	11'-11"	12'-4"	42.2	8.09	6.76	4.47
5¼”	3¼”	22	6'-10"	7'-11"	8'-1"	46.9	9.33	4.27	4.60
		20	7'-11"	8'-9"	9'-0"	47.4	10.04	5.08	5.15
		18	9'-6"	10'-1"	10'-5"	48.2	11.21	6.48	5.21
		16	10'-11"	11'-4"	11'-9"	49.1	12.30	7.91	5.21

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	18'-0"	20'-0"
4”	22	193	145	112	88	70	57	47	33	24
	20	209	157	121	95	76	61	51	35	26
	18	234	175	135	106	85	69	57	40	29
	16	257	193	149	117	93	76	62	44	32
4½”	22	254	200	154	121	97	79	65	45	33
	20	287	216	166	131	104	85	70	49	35
	18	321	241	186	146	117	95	78	55	40
	16	353	265	204	160	128	104	86	60	44
5¼”	22	294	235	190	155	127	105	86	58	38
	20	358	288	234	192	159	130	107	75	54
	18	470	367	283	222	178	145	119	83	61
	16	537	403	311	244	195	159	131	92	67

Notes:

1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Strength Web Based Solutions for alternate slabs or LRFD design.

2.0D FormLok Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage: WWR (OR)	Recommended Reinforcing for Temperature and Shrinkage: Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3) 4D 65/60BG
Normal Weight Concrete (145 pcf)					
4	2	1.12	0.028	6x6-W1.4xW1.4	23
4½	2½	1.28	0.028	6x6-W1.4xW1.4	18
4¾	2¾	1.35	0.028	6x6-W1.4xW1.4	16
5	3	1.43	0.028	6x6-W1.4xW1.4	15
5¼	3¼	1.51	0.029	6x6-W2.1xW2.1	15
5½	3½	1.58	0.032	6x6-W2.1xW2.1	15
6	4	1.74	0.036	6x6-W2.1xW2.1	15
6¾	4¾	1.97	0.043	6x6-W2.9xW2.9	15
Light Weight Concrete (110 pcf)					
4	2	1.12	0.028	6X6-W1.4xW1.4	33
4½	2½	1.28	0.028	6x6-W1.4xW1.4	25
5	3	1.43	0.028	6x6-W1.4xW1.4	20
5¼	3¼	1.51	0.029	6x6-W2.1xW2.1	20
5½	3½	1.58	0.032	6x6-W2.1xW2.1	20
6	4	1.74	0.036	6x6-W2.1xW2.1	20

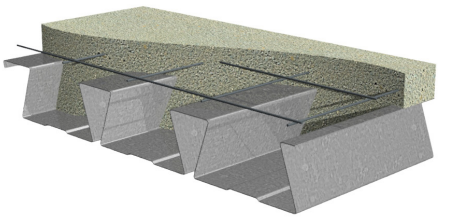
Notes:

1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

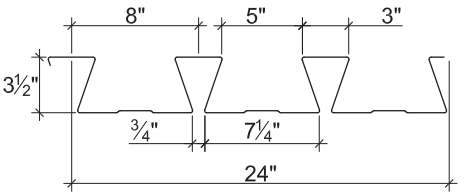
For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@bekaert.com.

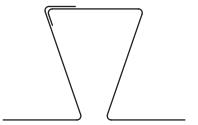
3.5D FORMLOK DOVETAIL DECK

- Enhanced 2-Coat Polyester Paint
- White Factory Primer Paint
- Galvanized Finish
- UL Listed



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2Ie+Ig)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 40 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Allowable Moment M_n+/Ω (lb-ft/ft)	M_n-/Ω (lb-ft/ft)	Vertical Web Shear V_n/Ω (lb/ft)
20	3.3	0.0358	40	1.762	1.646	0.676	0.781	1349	1559	3435
18	4.3	0.0474	40	2.415	2.272	0.980	1.070	1956	2136	6012
16	5.4	0.0598	40	3.133	2.968	1.317	1.377	2629	2749	8313

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

	Bearing Length of Webs											
	One-Flange Loading						Two-Flange Loading					
Deck Gage	End Bearing				Interior Bearing		End Bearing				Interior Bearing	
	2"	3"	4"	5"	4"	6"	2"	3"	4"	5"	4"	6"
20	693	794	880	955	1459	1670	714	796	865	926	1724	1991
18	1168	1330	1467	1588	2422	2753	1310	1450	1568	1672	2927	3360
16	1793	2032	2233	2410	3681	4162	2137	2352	2533	2693	4515	5157

Standard Features

- ASTM A653 SS GR 40 Min. with G90
- Standard lengths – 6'-0" to 42'-0"
- Tables conform to ANSI/SDI C-2017
- IAPMO UES ER-423 and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -19 gage
  - -Short cuts < 6'-0"
  - -Alternative metallic and painted finishes

3.5D FORMLOK® DOVETAIL DECK-SLAB
NORMAL WEIGHT CONCRETE (145 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
5½"	2"	20	10'-11"	12'-2"	12'-7"
		18	13'-6"	14'-3"	14'-8"
		16	14'-9"	16'-1"	16'-7"
5¾"	2¼"	20	10'-9"	11'-11"	12'-4"
		18	13'-3"	14'-0"	14'-5"
		16	14'-7"	15'-9"	16'-4"
6"	2½"	20	10'-6"	11'-9"	12'-1"
		18	13'-0"	13'-9"	14'-2"
		16	14'-5"	15'-6"	16'-0"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment M_{no}/Ω (kip-ft/ft)	Shear V_{no}/Ω (kip/ft)
59.9	14.40	6.87	4.52
60.9	15.99	8.74	4.52
62.0	17.61	10.32	4.52
62.9	16.27	7.13	4.72
63.9	18.03	9.13	4.72
65.0	19.75	11.10	4.72
65.9	18.29	7.39	4.93
66.9	20.24	9.47	4.93
68.0	22.14	11.59	4.93

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	23'-0"	25'-0"
5½"	20	184	153	128	107	91	77	64	44	28
	18	207	170	142	119	101	87	75	57	44
	16	228	187	156	131	112	96	83	63	49
5¾"	20	190	159	134	113	95	79	66	44	28
	18	233	192	160	135	114	98	85	64	50
	16	255	210	175	147	125	107	93	70	55
6"	20	196	165	138	116	97	81	68	45	28
	18	262	215	180	151	128	110	95	72	54
	16	286	236	196	165	141	120	104	79	61

Notes:

1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Strength Web Based Solutions for alternate slabs or LRFD design.

3.5D FORMLOK® DOVETAIL DECK-SLAB
LIGHT WEIGHT CONCRETE (110 pcf)

ASD

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
5½"	2"	20	12'-2"	13'-5"	13'-10"
		18	14'-10"	15'-8"	16'-2"
		16	15'-9"	17'-8"	18'-2"
5¾"	2¼"	20	11'-11"	13'-2"	13'-8"
		18	14'-8"	15'-5"	15'-11"
		16	15'-7"	17'-4"	17'-11"
8"	4½"	20	10'-5"	11'-7"	12'-0"
		18	12'-10"	13'-7"	14'-0"
		16	14'-4"	15'-4"	15'-10"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment M_{no}/Ω (kip-ft/ft)	Shear V_{no}/Ω (kip/ft)
46.2	11.18	6.37	4.52
47.2	12.69	7.86	4.52
48.3	14.26	9.44	4.52
48.5	12.57	6.81	4.72
49.5	14.13	8.35	4.72
50.6	15.75	9.88	4.72
69.1	31.09	9.31	5.61
70.1	34.56	11.92	6.57
71.2	37.85	14.57	6.57

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	23'-0"	25'-0"
5½"	20	144	119	99	83	71	61	52	40	31
	18	164	135	112	95	80	69	59	45	35
	16	184	152	126	106	90	77	67	51	39
5¾"	20	162	134	111	94	80	68	59	45	35
	18	182	150	125	105	90	77	66	50	39
	16	203	168	140	118	100	86	74	56	44
8"	20	262	221	188	160	137	117	99	71	50
	18	353	302	259	224	194	168	146	110	82
	16	446	384	332	283	241	206	178	135	105

Notes:

1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Strength Web Based Solutions for alternate slabs or LRFD design.

3.5D FormLok Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage	
				WWR (OR)	Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3)
					4D 65/60BG
Normal Weight Concrete (145 pcf)					
5½	2	1.44	0.028	6x6-W1.4xW1.4	23
5¾	2¼	1.52	0.028	6x6-W1.4xW1.4	20
6	2½	1.60	0.028	6x6-W1.4xW1.4	18
6½	3	1.75	0.028	6x6-W1.4xW1.4	15
7	3½	1.91	0.032	6x6-W2.1xW2.1	15
7¼	3¾	1.98	0.034	6x6-W2.1xW2.1	15
7½	4	2.06	0.036	6x6-W2.1xW2.1	15
8	4½	2.22	0.041	6x6-W2.1xW2.1	15
Light Weight Concrete (110 pcf)					
5½	2	1.44	0.028	6x6-W1.4xW1.4	33
5¾	2¼	1.52	0.028	6x6-W1.4xW1.4	28
6	2½	1.60	0.028	6x6-W1.4xW1.4	25
6½	3	1.75	0.028	6x6-W1.4xW1.4	20
7	3½	1.91	0.032	6x6-W2.1xW2.1	20
7½	4	2.06	0.036	6x6-W2.1xW2.1	20
8	4½	2.22	0.041	6x6-W2.1xW2.1	20

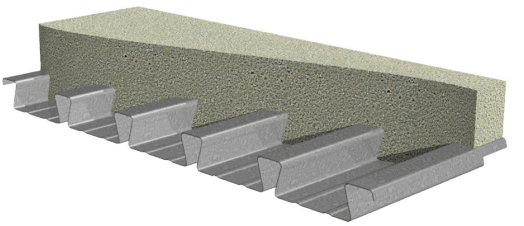
Notes:

1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

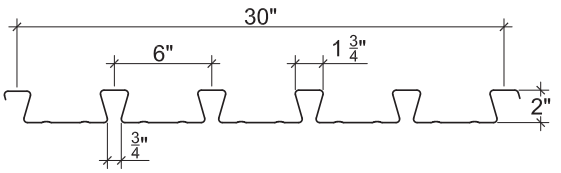
For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@bekaert.com.

2.0DS-30 FL DOVETAIL DECK

- Enhanced 2-Coat Polyester Paint
- White Factory Primer Paint
- Galvanized Finish
- UL Listed



Nominal Dimensions



Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Allowable Moment M_n+/Ω (lb-ft/ft)	M_n-/Ω (lb-ft/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	2.2	0.0299	50	0.430	0.382	0.301	0.306	752	763	3334
20	2.7	0.0359	50	0.520	0.473	0.378	0.373	943	930	3978
18	3.6	0.0478	50	0.695	0.661	0.527	0.509	1315	1269	5229
16	4.5	0.0598	50	0.872	0.856	0.667	0.648	1664	1617	6455

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"
22	833	916	1054	1171	1557	1794	859	926	1037	1130	1905	2217
20	1166	1278	1465	1622	2186	2503	1272	1366	1523	1655	2706	3130
18	1970	2148	2446	2698	3707	4201	2322	2480	2745	2968	4656	5331
16	2964	3218	3646	4007	5590	6279	3684	3919	4313	4646	7085	8040

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI C-2017
- IAPMO UES ER-423 and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  -21, 19, or 17 gage
  -Alternative metallic and painted finishes

2.0DS-30 FL DOVETAIL DECK-SLAB
NORMAL WEIGHT CONCRETE (145 pcf)

ASD

Maximum Unshored Spans

Slab Depth		Deck Gage	Maximum Unshored Construction Clear Span		
Total	Topping		1	2	3
4”	2”	22	8'-6"	9'-5"	9'-9"
		20	9'-9"	10'-4"	10'-8"
		18	10'-8"	12'-0"	12'-5"
		16	11'-5"	13'-6"	13'-4"
5¼”	3¼”	22	7'-8"	8'-6"	8'-9"
		20	8'-9"	9'-4"	9'-8"
		18	9'-9"	10'-11"	11'-3"
		16	10'-6"	12'-3"	12'-6"
5½”	3½”	22	7'-6"	8'-4"	8'-8"
		20	8'-7"	9'-2"	9'-6"
		18	9'-8"	10'-8"	11'-1"
		16	10'-4"	12'-0"	12'-4"

Composite Deck-Slab Properties

Deck Gage	Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment M_{no}/Ω (kip-ft/ft)	Shear V_{no}/Ω (kip/ft)
22	45.5	5.74	4.34	3.72
20	46.0	6.14	5.11	3.72
18	46.9	6.85	6.56	3.72
16	47.8	7.48	7.93	3.72
22	60.6	12.20	5.64	4.89
20	61.1	13.00	6.66	4.89
18	62.0	14.44	8.58	4.89
16	62.9	15.73	10.43	4.89
22	63.6	13.88	5.91	5.12
20	64.1	14.79	6.97	5.12
18	65.0	16.41	9.00	5.12
16	65.9	17.88	10.95	5.12

Notes:

1. Maximum unshored spans are based on 20 psf uniform construction live load and 150 plf concentrated construction live load.
2. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	18'-0"	20'-0"
4”	22	250	188	145	114	91	74	61	43	31
	20	268	201	155	122	97	79	65	46	33
	18	299	224	173	136	109	88	73	51	37
	16	327	245	189	148	119	96	79	56	40
5¼”	22	390	312	252	206	169	139	115	78	52
	20	471	378	308	253	207	168	138	97	71
	18	624	474	365	287	229	186	154	108	78
	16	687	516	397	312	250	203	167	117	85
5½”	22	408	326	264	216	177	146	120	82	54
	20	493	396	323	266	220	183	153	108	75
	18	655	530	415	326	261	212	175	122	89
	16	781	586	452	355	284	231	190	133	97

Notes:

1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Superimposed Load tool for alternate slabs or LRFD design.

2.0DS-30 FL DOVETAIL DECK-SLAB
LIGHT WEIGHT CONCRETE (110 pcf)

ASD

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
4”	2”	22	9'-4"	10'-4"	10'-8"
		20	10'-8"	11'-4"	11'-9"
		18	11'-7"	13'-2"	13'-4"
		16	12'-2"	14'-9"	14'-2"
4½”	2½”	22	8'-11"	9'-11"	10'-3"
		20	10'-3"	10'-11"	11'-3"
		18	11'-3"	12'-8"	13'-0"
		16	11'-10"	14'-2"	13'-9"
5¼”	3¼”	22	8'-6"	9'-5"	9'-9"
		20	9'-9"	10'-4"	10'-8"
		18	10'-8"	12'-0"	12'-5"
		16	11'-5"	13'-6"	13'-4"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment M_{no}/Ω (kip-ft/ft)	Shear V_{no}/Ω (kip/ft)
35.0	4.44	4.15	3.72
35.5	4.77	4.87	3.72
36.4	5.36	6.21	3.72
37.3	5.88	7.48	3.72
39.6	6.12	4.65	4.19
40.1	6.58	5.46	4.19
41.0	7.37	6.97	4.19
41.9	8.07	8.41	4.19
46.5	9.36	5.42	4.88
47.0	10.04	6.38	4.89
47.9	11.23	8.18	4.89
48.8	12.29	9.89	4.89

Notes:
1. Maximum unshored spans are based on 20 psf uniform construction live load and 150 plf concentrated construction live load.
2. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	18'-0"	20'-0"
4”	22	194	145	112	88	70	57	47	33	24
	20	208	156	120	94	76	61	50	35	26
	18	234	176	135	106	85	69	57	40	29
	16	257	193	148	117	93	76	62	44	32
4½”	22	267	201	154	121	97	79	65	45	33
	20	287	215	166	130	104	85	70	49	35
	18	322	242	186	146	117	95	78	55	40
	16	352	265	204	160	128	104	86	60	44
5¼”	22	387	307	236	186	149	121	99	70	51
	20	438	329	253	199	159	129	107	75	54
	18	490	368	284	223	178	145	119	84	61
	16	536	403	310	244	195	159	131	92	67

Notes:
1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Superimposed Load tool for alternate slabs or LRFD design.

2.0DS-30 FL DOVETAIL DECK-SLAB

2.0DS-30 FL Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage	
				WWR (OR)	Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3)
					4D 65/60BG
Normal Weight Concrete (145 pcf)					
4	2	1.11	0.028	6x6-W1.4xW1.4	23
4½	2½	1.26	0.028	6x6-W1.4xW1.4	18
4¾	2¾	1.34	0.028	6x6-W1.4xW1.4	16
5	3	1.41	0.028	6x6-W1.4xW1.4	15
5¼	3¼	1.49	0.029	6x6-W2.1xW2.1	15
5½	3½	1.57	0.032	6x6-W2.1xW2.1	15
6	4	1.72	0.036	6x6-W2.1xW2.1	15
6¾	4¾	1.95	0.043	6x6-W2.9xW2.9	15
Light Weight Concrete (110 pcf)					
4	2	1.11	0.028	6X6-W1.4xW1.4	33
4½	2½	1.26	0.028	6x6-W1.4xW1.4	25
5	3	1.41	0.028	6x6-W1.4xW1.4	20
5¼	3¼	1.49	0.029	6x6-W2.1xW2.1	20
5½	3½	1.57	0.032	6x6-W2.1xW2.1	20
6	4	1.72	0.036	6x6-W2.1xW2.1	20

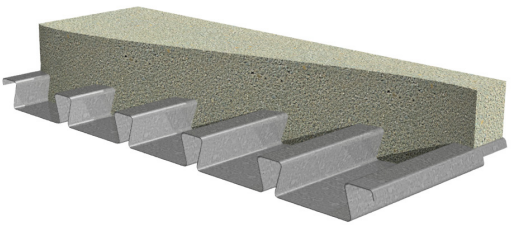
Notes:

1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

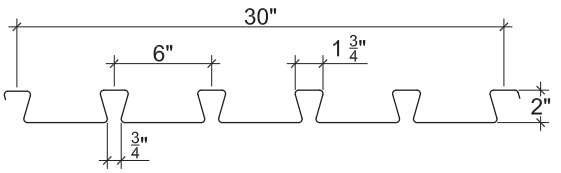
For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@bekaert.com.

2.0DF-30 FL DOVETAIL DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **UL Listed**



Nominal Dimensions



Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$		Effective Section Modulus at F_y = 50 ksi		Allowable Moment		Vertical Web Shear
				I_d+ (in⁴/ft)	I_d- (in⁴/ft)	S_e+ (in³/ft)	S_e- (in³/ft)	M_n+/Ω (lb-ft/ft)	M_n-/Ω (lb-ft/ft)	V_n/Ω (lb/ft)
20	2.7	0.0359	50	0.524	0.468	0.380	0.344	947	859	3978
18	3.6	0.0478	50	0.699	0.660	0.530	0.491	1322	1225	5229
16	4.5	0.0598	50	0.877	0.857	0.670	0.632	1673	1576	6455

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs											
	One-Flange Loading						Two-Flange Loading					
	End Bearing				Interior Bearing		End Bearing				Interior Bearing	
	1½"	2"	3"	4"	3"	5"	1½"	2"	3"	4"	3"	5"
20	1166	1278	1465	1622	2186	2503	1272	1366	1523	1655	2706	3130
18	1970	2148	2446	2698	3707	4201	2322	2480	2745	2968	4656	5331
16	2964	3218	3646	4007	5590	6279	3684	3919	4313	4646	7085	8040

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI C-2017
- IAPMO UES ER-423 and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  -19 or 17 gage
  -Alternative metallic and painted finishes

2.0DF-30 FL DOVETAIL DECK-SLAB
NORMAL WEIGHT CONCRETE (145 pcf)

ASD

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
4"	2"	20	9'-9"	9'-11"	10'-3"
		18	10'-8"	11'-10"	12'-2"
		16	11'-5"	13'-4"	13'-4"
5¼"	3¼"	20	8'-9"	9'-0"	9'-4"
		18	9'-10"	10'-8"	11'-1"
		16	10'-6"	12'-1"	12'-6"
5½"	3½"	20	8'-7"	8'-10"	9'-2"
		18	9'-8"	10'-6"	10'-10"
		16	10'-4"	11'-11"	12'-3"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment M_{no}/Ω (kip-ft/ft)	Shear V_{no}/Ω (kip/ft)
46.0	6.14	5.11	3.72
46.9	6.85	6.55	3.72
47.8	7.49	7.93	3.72
61.1	12.99	6.65	4.89
62.0	14.43	8.57	4.89
62.9	15.72	10.42	4.89
64.1	14.78	6.96	5.12
65.0	16.41	8.99	5.12
65.9	17.87	10.94	5.12

Notes:

1. Maximum unshored spans are based on 20 psf uniform construction live load and 150 plf concentrated construction live load.
2. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	18'-0"	20'-0"
4"	20	268	201	155	122	97	79	65	46	33
	18	299	224	173	136	109	88	73	51	37
	16	327	245	189	148	119	96	79	56	40
5¼"	20	470	378	308	253	206	168	138	97	70
	18	623	473	364	287	229	186	153	108	78
	16	687	516	397	312	250	203	167	117	85
5½"	20	493	396	322	265	220	183	153	107	75
	18	654	529	414	326	261	212	175	122	89
	16	780	586	451	355	284	231	190	133	97

Notes:

1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Superimposed Load tool for alternate slabs or LRFD design.

2.0DF-30 FL DOVETAIL DECK-SLAB
LIGHT WEIGHT CONCRETE (110 pcf)

ASD

Maximum Unshored Spans

Composite Deck-Slab Properties

Slab Depth		Deck	Maximum Unshored Construction Clear Span			Concrete + Deck	Deflection	Moment	Shear
Total	Topping	Gage	1	2	3	(psf)	$I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	M_{no}/Ω (kip-ft/ft)	V_{no}/Ω (kip/ft)
4”	2”	20	10'-8"	10'-11"	11'-3"	35.5	4.78	4.87	3.72
		18	11'-7"	12'-11"	13'-4"	36.4	5.37	6.21	3.72
		16	12'-2"	14'-7"	14'-2"	37.3	5.89	7.48	3.72
4½”	2½”	20	10'-3"	10'-6"	10'-10"	40.1	6.58	5.46	4.19
		18	11'-3"	12'-5"	12'-10"	41.0	7.37	6.97	4.19
		16	11'-10"	14'-0"	13'-10"	41.9	8.08	8.41	4.19
5¼”	3¼”	20	9'-9"	9'-11"	10'-3"	47.0	10.03	6.37	4.89
		18	10'-8"	11'-10"	12'-2"	47.9	11.23	8.17	4.89
		16	11'-5"	13'-4"	13'-4"	48.8	12.28	9.88	4.89

Notes:

1. Maximum unshored spans are based on 20 psf uniform construction live load and 150 plf concentrated construction live load.
2. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	18'-0"	20'-0"
4”	20	208	156	120	95	76	61	50	35	26
	18	234	176	135	106	85	69	57	40	29
	16	257	193	148	117	93	76	62	44	32
4½”	20	287	215	166	130	104	85	70	49	35
	18	322	242	186	146	117	95	78	55	40
	16	352	265	204	160	128	104	86	60	44
5¼”	20	438	329	253	199	159	129	107	75	54
	18	490	368	284	223	178	145	119	84	61
	16	536	403	310	244	195	159	131	92	67

Notes:

1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Superimposed Load tool for alternate slabs or LRFD design.

2.0DF-30 FL Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage: WWR (OR)	Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3): 4D 65/60BG
Normal Weight Concrete (145 pcf)					
4	**2**	1.11	0.028	6x6-W1.4xW1.4	23
4½	**2½**	1.26	0.028	6x6-W1.4xW1.4	18
4¾	**2¾**	1.34	0.028	6x6-W1.4xW1.4	16
5	**3**	1.41	0.028	6x6-W1.4xW1.4	15
5¼	**3¼**	1.49	0.029	6x6-W2.1xW2.1	15
5½	**3½**	1.57	0.032	6x6-W2.1xW2.1	15
6	**4**	1.72	0.036	6x6-W2.1xW2.1	15
6¾	**4¾**	1.95	0.043	6x6-W2.9xW2.9	15
Light Weight Concrete (110 pcf)					
4	**2**	1.11	0.028	6X6-W1.4xW1.4	33
4½	**2½**	1.26	0.028	6x6-W1.4xW1.4	25
5	**3**	1.41	0.028	6x6-W1.4xW1.4	20
5¼	**3¼**	1.49	0.029	6x6-W2.1xW2.1	20
5½	**3½**	1.57	0.032	6x6-W2.1xW2.1	20
6	**4**	1.72	0.036	6x6-W2.1xW2.1	20

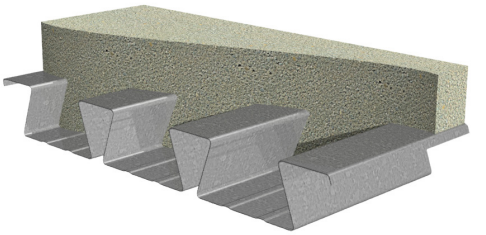
Notes:

1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

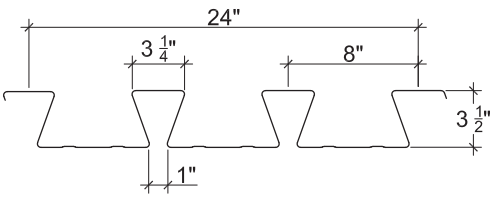
For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@bekaert.com.

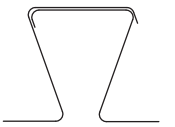
3.5DS-24 FL DOVETAIL DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **UL Listed**



Nominal Dimensions





Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Allowable Moment M_n+/Ω (lb-ft/ft)	M_n-/Ω (lb-ft/ft)	Vertical Web Shear V_n/Ω (lb/ft)
20	3.4	0.0359	50	1.951	1.805	0.714	0.757	1781	1889	3754
18	4.5	0.0478	50	2.681	2.505	1.052	1.108	2626	2765	6813
16	5.6	0.0598	50	3.421	3.243	1.414	1.505	3527	3756	9781

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

	Bearing Length of Webs											
	One-Flange Loading						Two-Flange Loading					
Deck Gage	End Bearing				Interior Bearing		End Bearing				Interior Bearing	
	2"	3"	4"	5"	4"	6"	2"	3"	4"	5"	4"	6"
20	859	985	1091	1184	1735	1985	850	948	1030	1103	2046	2363
18	1465	1668	1840	1991	2933	3334	1592	1762	1905	2031	3542	4066
16	2217	2512	2760	2979	4415	4992	2565	2823	3040	3232	5411	6179

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI C-2017
- IAPMO UES ER-423 and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  -19 or 17 gage
  -Alternative metallic and painted finishes

3.5DS-24 FL DOVETAIL DECK-SLAB
NORMAL WEIGHT CONCRETE (145 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
5½"	2"	20	13'-0"	13'-6"	13'-11"
		18	14'-4"	16'-3"	16'-6"
		16	15'-2"	18'-8"	17'-6"
5¾"	2¼"	20	12'-8"	13'-3"	13'-8"
		18	14'-2"	16'-0"	16'-4"
		16	15'-0"	18'-5"	17'-4"
6"	2½"	20	12'-6"	13'-0"	13'-5"
		18	14'-0"	15'-9"	16'-1"
		16	14'-10"	18'-3"	17'-2"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment M_{no}/Ω (kip-ft/ft)	Shear V_{no}/Ω (kip/ft)
58.6	14.12	8.21	4.29
59.7	15.73	10.54	4.29
60.8	17.27	12.35	4.29
61.6	15.95	8.53	4.49
62.7	17.72	10.96	4.49
63.8	19.36	13.3	4.49
64.7	17.93	8.85	4.68
65.8	19.89	11.38	4.68
66.9	21.69	13.81	4.68

Notes:
1. Maximum unshored spans are based on 20 psf uniform construction live load and 150 plf concentrated construction live load.
2. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	23'-0"	25'-0"
5½"	20	182	150	125	105	89	77	66	50	39
	18	203	167	139	117	100	85	74	56	43
	16	223	184	153	129	110	94	81	62	48
5¾"	20	206	170	141	119	101	87	75	57	44
	18	229	189	157	132	112	96	83	63	49
	16	250	206	172	145	123	105	91	69	54
6"	20	232	191	159	134	114	97	84	64	48
	18	257	212	176	149	126	108	93	71	55
	16	280	231	192	162	138	118	102	77	60

Notes:
1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Superimposed Load tool for alternate slabs or LRFD design.

3.5DS-24 FL DOVETAIL DECK-SLAB
LIGHT WEIGHT CONCRETE (110 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
5½"	2"	20	14'-2"	14'-11"	15'-5"
		18	15'-3"	17'-11"	17'-7"
		16	16'-2"	19'-10"	18'-8"
5¾"	2¼"	20	14'-0"	14'-8"	15'-1"
		18	15'-1"	17'-8"	17'-5"
		16	16'-0"	19'-8"	18'-6"
8"	4½"	20	12'-3"	12'-10"	13'-3"
		18	13'-10"	15'-6"	16'-0"
		16	14'-8"	18'-0"	17'-0"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment M_{no}/Ω (kip-ft/ft)	Shear V_{no}/Ω (kip/ft)
45.3	10.97	7.66	4.29
46.4	12.49	9.46	4.29
47.5	13.99	11.27	4.29
47.6	12.33	8.14	4.49
48.7	13.90	10.06	4.49
49.8	15.44	11.82	4.49
68.2	30.55	11.27	5.77
69.3	34.03	14.45	6.24
70.4	37.15	17.51	6.24

Notes:
1. Maximum unshored spans are based on 20 psf uniform construction live load and 150 plf concentrated construction live load.
2. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	23'-0"	25'-0"
5½"	20	142	117	97	82	69	59	51	39	30
	18	161	133	111	93	79	68	58	44	34
	16	181	149	124	104	89	76	66	50	39
5¾"	20	159	131	109	92	78	67	58	44	34
	18	180	148	123	104	88	75	65	49	38
	16	199	164	137	115	98	84	72	55	43
8"	20	332	283	243	210	181	157	136	102	76
	18	440	363	302	254	216	185	160	122	95
	16	481	396	330	278	236	202	175	133	103

Notes:
1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Superimposed Load tool for alternate slabs or LRFD design.

3.5DS-24 FL Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage: WWR (OR)	Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3): 4D 65/60BG
Normal Weight Concrete (145 pcf)					
5½	2	1.41	0.028	6x6-W1.4xW1.4	23
5¾	2¼	1.49	0.028	6x6-W1.4xW1.4	20
6	2½	1.56	0.028	6x6-W1.4xW1.4	18
6½	3	1.72	0.028	6x6-W1.4xW1.4	15
7	3½	1.87	0.032	6x6-W2.1xW2.1	15
7¼	3¾	1.95	0.034	6x6-W2.1xW2.1	15
7½	4	2.03	0.036	6x6-W2.1xW2.1	15
8	4½	2.18	0.041	6x6-W2.1xW2.1	15
Light Weight Concrete (110 pcf)					
5½	2	1.41	0.028	6x6-W1.4xW1.4	33
5¾	2¼	1.49	0.028	6x6-W1.4xW1.4	28
6	2½	1.56	0.028	6x6-W1.4xW1.4	25
6½	3	1.72	0.028	6x6-W1.4xW1.4	20
7	3½	1.87	0.032	6x6-W2.1xW2.1	20
7½	4	2.03	0.036	6x6-W2.1xW2.1	20
8	4½	2.18	0.041	6x6-W2.1xW2.1	20

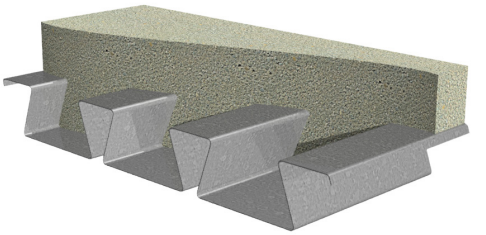
Notes:

1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

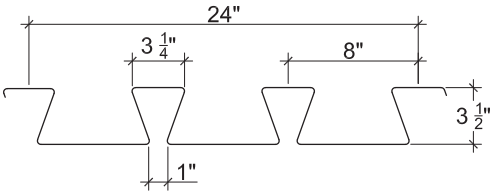
For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@bekaert.com.

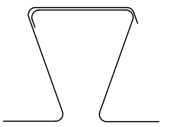
3.5DF-24 FL DOVETAIL DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **UL Listed**



Nominal Dimensions





Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Allowable Moment M_n+/Ω (lb-ft/ft)	M_n-/Ω (lb-ft/ft)	Vertical Web Shear V_n/Ω (lb/ft)
18	4.5	0.0478	50	2.688	2.496	1.055	0.935	2633	2333	6813
16	5.6	0.0598	50	3.430	3.256	1.417	1.289	3536	3217	9781

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 2"	3"	4"	5"	Interior Bearing 4"	6"
18	1465	1668	1840	1991	2933	3334	1592	1762	1905	2031	3542	4066
16	2217	2512	2760	2979	4415	4992	2565	2823	3040	3232	5411	6179

Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI C-2017
- IAPMO UES ER-423 and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  -17 gage
  -Alternative metallic and painted finishes

3.5DF-24 FL DOVETAIL DECK-SLAB
NORMAL WEIGHT CONCRETE (145 pcf)

ASD

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
5½”	2”	18	14'-4"	15'-0"	15'-6"
		16	15'-2"	17'-6"	17'-6"
5¾”	2¼”	18	14'-2"	14'-8"	15'-2"
		16	15'-0"	17'-2"	17'-4"
6”	2½”	18	14'-0"	14'-5"	14'-11"
		16	14'-10"	16'-11"	17'-2"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment M_{no}/Ω (kip-ft/ft)	Shear V_{no}/Ω (kip/ft)
59.7	15.73	10.54	4.29
60.8	17.27	12.35	4.29
62.7	17.72	10.95	4.49
63.8	19.36	13.29	4.49
65.8	19.88	11.37	4.68
66.9	21.69	13.80	4.68

Notes:
1. Maximum unshored spans are based on 20 psf uniform construction live load and 150 plf concentrated construction live load.
2. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	23'-0"	25'-0"
5½”	18	203	167	139	117	100	85	74	56	43
	16	223	184	153	129	110	94	81	62	48
5¾”	18	229	189	157	132	112	96	83	63	49
	16	250	206	172	145	123	105	91	69	54
6”	18	257	212	176	149	126	108	93	71	55
	16	280	231	192	162	138	118	102	77	60

Notes:
1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Superimposed Load tool for alternate slabs or LRFD design.

3.5DF-24 FL DOVETAIL DECK-SLAB
LIGHT WEIGHT CONCRETE (110 pcf)

Maximum Unshored Spans

Slab Depth		Deck Gage	Maximum Unshored Construction Clear Span		
Total	Topping		1	2	3
5½”	2”	18	15'-4"	16'-6"	17'-0"
		16	16'-2"	19'-3"	18'-8"
5¾”	2¼”	18	15'-1"	16'-2"	16'-9"
		16	16'-0"	18'-11"	18'-6"
8”	4½”	18	13'-11"	14'-3"	14'-9"
		16	14'-8"	16'-8"	17'-0"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment M_{no}/Ω (kip-ft/ft)	Shear V_{no}/Ω (kip/ft)
46.4	12.49	9.46	4.29
47.5	13.99	11.27	4.29
48.7	13.90	10.06	4.49
49.8	15.44	11.82	4.49
69.3	34.01	14.43	6.24
70.4	37.13	17.48	6.24

Notes:
1. Maximum unshored spans are based on 20 psf uniform construction live load and 150 plf concentrated construction live load.
2. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	23'-0"	25'-0"
5½”	18	161	133	111	93	79	68	58	44	34
	16	181	149	124	104	89	76	66	50	39
5¾”	18	180	148	123	104	88	75	65	49	38
	16	199	164	137	115	98	84	72	55	43
8”	18	440	362	302	254	216	185	160	122	95
	16	480	396	330	278	236	202	175	133	103

Notes:
1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Superimposed Load tool for alternate slabs or LRFD design.

3.5DF-24 FL DOVETAIL DECK-SLAB

3.5DF-24 FL Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage		
				WWR	(OR)	Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3)
						4D 65/60BG
Normal Weight Concrete (145 pcf)						
5½	2	1.41	0.028	6x6-W1.4xW1.4		23
5¾	2¼	1.49	0.028	6x6-W1.4xW1.4		20
6	2½	1.56	0.028	6x6-W1.4xW1.4		18
6½	3	1.72	0.028	6x6-W1.4xW1.4		15
7	3½	1.87	0.032	6x6-W2.1xW2.1		15
7¼	3¾	1.95	0.034	6x6-W2.1xW2.1		15
7½	4	2.03	0.036	6x6-W2.1xW2.1		15
8	4½	2.18	0.041	6x6-W2.1xW2.1		15
Light Weight Concrete (110 pcf)						
5½	2	1.41	0.028	6x6-W1.4xW1.4		33
5¾	2¼	1.49	0.028	6x6-W1.4xW1.4		28
6	2½	1.56	0.028	6x6-W1.4xW1.4		25
6½	3	1.72	0.028	6x6-W1.4xW1.4		20
7	3½	1.87	0.032	6x6-W2.1xW2.1		20
7½	4	2.03	0.036	6x6-W2.1xW2.1		20
8	4½	2.18	0.041	6x6-W2.1xW2.1		20

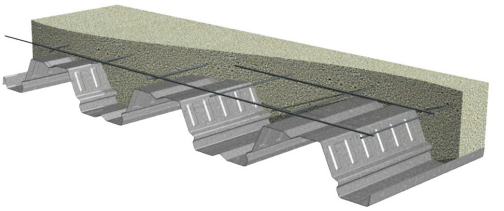
Notes:

1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

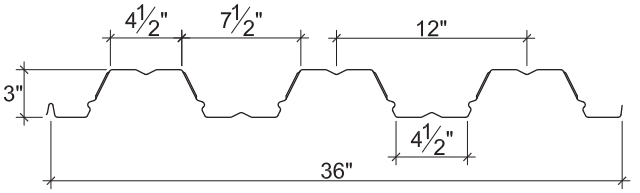
For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@bekaert.com.

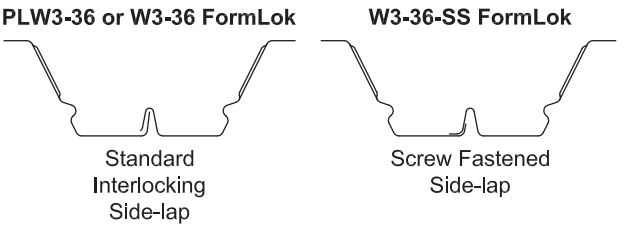
W3 FORMLOK DECKS

- **PLW3-36 FormLok Deck used with PunchLok® II System**
- **W3-36 FormLok Deck used with TSWs or BPs**
- **W3-36-SS FormLok Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	1.9	0.0299	50	0.736	0.730	0.393	0.410	1364
20	2.3	0.0359	50	0.907	0.899	0.510	0.528	2360
18	2.9	0.0478	50	1.213	1.211	0.752	0.768	4286
16	3.5	0.0598	50	1.516	1.516	0.968	0.966	6199

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
22	349	383	441	490	778	908	329	354	397	432	901	1063
20	493	540	619	686	1090	1351	498	535	596	648	1286	1617
18	845	922	1049	1157	1845	2310	938	1001	1108	1198	2228	2835
16	1285	1395	1581	1737	2779	3449	1517	1614	1776	1913	3406	4297

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer bottom optional
- ASTM A1008 SS GR50 Min. with gray primer bottom
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI C-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Factory Vent Tabs

PLW3™-36/W3-36 FORMLOK® DECK-SLABS
NORMAL WEIGHT CONCRETE (145 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
5"	2"	22	10'-1"	10'-9"	11'-1"
		20	11'-8"	12'-4"	12'-9"
		18	12'-7"	14'-11"	14'-8"
		16	13'-3"	16'-6"	15'-6"
6½"	3½"	22	8'-11"	8'-6"	9'-8"
		20	10'-4"	10'-11"	11'-3"
		18	11'-7"	13'-3"	13'-7"
		16	12'-3"	14'-10"	14'-4"
7½"	4½"	22	8'-4"	7'-5"	8'-6"
		20	9'-8"	10'-2"	10'-6"
		18	11'-1"	12'-5"	12'-10"
		16	11'-9"	13'-11"	13'-9"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment M_{no}/Ω (kip-ft/ft)	Shear V_{no}/Ω (kip/ft)
44.2	7.52	3.45	3.16
44.6	7.98	4.05	3.83
45.2	8.83	5.20	3.83
45.8	9.61	6.30	3.83
62.3	15.90	4.54	4.01
62.7	16.81	5.35	4.92
63.3	18.50	6.89	5.52
63.9	20.05	8.37	5.52
74.4	24.07	5.33	4.64
74.8	25.40	6.28	5.55
75.4	27.87	8.12	6.78
76.0	30.15	9.88	6.78

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"
5"	22	386	296	231	183	147	118	96	78	63
	20	462	355	279	223	180	147	120	99	82
	18	604	468	370	289	223	175	140	114	94
	16	741	575	419	315	242	191	153	124	102
6½"	22	505	386	301	238	190	152	123	99	79
	20	606	465	365	291	234	190	155	127	104
	18	798	617	488	392	319	262	218	181	152
	16	982	763	605	489	401	332	277	233	197
7½"	22	591	451	351	277	221	177	142	114	92
	20	710	545	427	340	274	222	181	148	121
	18	939	726	573	461	375	308	255	213	178
	16	1159	900	714	577	473	391	327	275	232

Notes:

1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Strength Web Based Solutions for alternate slabs or LRFD design.

PLW3™-36/W3-36 FORMLOK® DECK-SLABS
LIGHT WEIGHT CONCRETE (110 pcf)

Maximum Unshored Spans / Composite Deck-Slab Properties

Slab Depth			Maximum Unshored Construction Clear Span			Concrete + Deck	Deflection	Moment	Shear
Total	Topping	Deck Gage	1	2	3	(psf)	$I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	M_{no}/Ω (kip-ft/ft)	V_{no}/Ω (kip/ft)
5"	2"	22	11'-2"	11'-10"	12'-2"	34.0	5.73	3.30	2.69
		20	12'-6"	13'-6"	14'-0"	34.4	6.14	3.87	3.60
		18	13'-5"	16'-4"	15'-8"	35.0	6.88	4.94	3.83
		16	14'-1"	17'-7"	16'-6"	35.6	7.56	5.97	3.83
5½"	2½"	22	10'-8"	11'-4"	11'-8"	38.6	7.49	3.64	2.89
		20	12'-2"	13'-0"	13'-5"	39.0	8.01	4.27	3.80
		18	13'-0"	15'-8"	15'-3"	39.6	8.95	5.45	4.37
		16	13'-9"	17'-1"	16'-1"	40.2	9.80	6.58	4.37
6¼"	3¼"	22	10'-1"	10'-8"	11'-1"	45.4	10.75	4.18	3.21
		20	11'-8"	12'-4"	12'-9"	45.8	11.48	4.91	4.12
		18	12'-6"	14'-11"	14'-8"	46.4	12.79	6.28	5.22
		16	13'-3"	16'-5"	15'-6"	47.0	13.99	7.59	5.22

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"
5"	22	379	292	230	184	145	114	91	74	61
	20	449	348	268	201	155	122	97	79	65
	18	583	412	300	225	174	136	109	89	73
	16	645	453	330	248	191	150	120	97	80
5½"	22	416	321	252	202	163	133	110	90	75
	20	494	382	302	243	198	159	127	103	85
	18	642	499	391	293	226	177	142	115	95
	16	782	587	428	321	247	195	156	126	104
6¼"	22	477	367	289	231	186	152	125	103	85
	20	568	439	347	278	226	186	154	128	107
	18	739	574	456	369	302	251	203	165	136
	16	902	703	560	455	353	278	222	181	149

Notes:

1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Strength Web Based Solutions for alternate slabs or LRFD design.

PLW3-36/W3-36 FormLok Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage: WWR	(OR) Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3): 4D 65/60BG
Normal Weight Concrete (145 pcf)					
5	**2**	1.08	0.028	6x6-W1.4xW1.4	23
5½	**2½**	1.24	0.028	6x6-W1.4xW1.4	18
6	**3**	1.39	0.028	6x6-W1.4xW1.4	15
6½	**3½**	1.54	0.032	6x6-W2.1xW2.1	15
7½	**4½**	1.85	0.041	6x6-W2.1xW2.1	15
Light Weight Concrete (110 pcf)					
5	**2**	1.08	0.028	6x6-W1.4xW1.4	33
5½	**2½**	1.24	0.028	6x6-W1.4xW1.4	25
6¼	**3¼**	1.47	0.029	6x6-W2.1xW2.1	20
7¼	**4¼**	1.78	0.038	6x6-W2.1xW2.1	20

Notes:

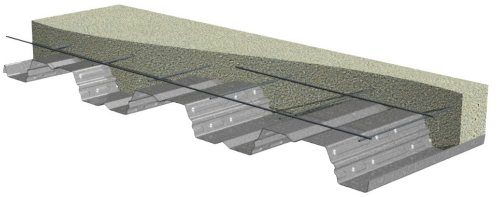
1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@beckaert.com

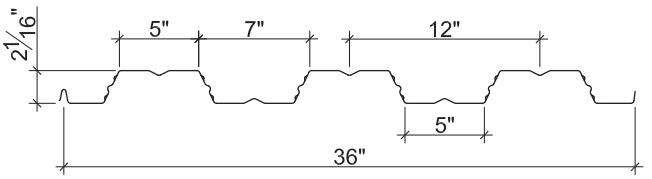
PLW2™-36/W2-36 FORMLOK® COMPOSITE DECKS
GRADE 50 STEEL

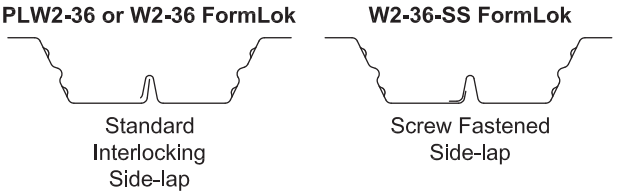
W2 FORMLOK DECKS

- **PLW2-36 FormLok Deck used with PunchLok® II System**
- **W2-36 FormLok Deck used with TSWs or BPs**
- **W2-36-SS FormLok Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	1.8	0.030	50	0.341	0.339	0.246	0.256	1699
20	2.1	0.036	50	0.422	0.419	0.323	0.333	2444
18	2.7	0.047	50	0.564	0.562	0.471	0.481	3224
16	3.3	0.059	50	0.708	0.708	0.623	0.638	4034

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	6"
22	375	412	474	527	792	910	376	405	453	494	955	1107
20	526	577	661	732	1109	1268	560	601	670	728	1355	1565
18	862	940	1071	1182	1808	2056	990	1058	1172	1267	2247	2580
16	1310	1423	1613	1773	2737	3095	1594	1696	1867	2011	3439	3929

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer bottom optional
- ASTM A1008 SS GR50 Min. with gray primer bottom
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI C-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Factory Vent Tabs

PLW2™-36/W2-36 FORMLOK® DECK-SLABS
NORMAL WEIGHT CONCRETE (145 pcf)

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
4"	2"	22	7'-10"	9'-1"	9'-4"
		20	9'-4"	10'-4"	10'-8"
		18	10'-7"	12'-5"	12'-7"
		16	11'-4"	14'-1"	13'-3"
5½"	3½"	22	6'-11"	7'-11"	8'-2"
		20	8'-2"	9'-1"	9'-4"
		18	9'-4"	10'-10"	11'-3"
		16	10'-1"	12'-6"	12'-2"
6½"	4½"	22	6'-5"	7'-4"	7'-7"
		20	7'-7"	8'-5"	8'-9"
		18	8'-10"	10'-1"	10'-6"
		16	9'-6"	11'-8"	11'-7"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment M_{no}/Ω (kip-ft/ft)	Shear V_{no}/Ω (kip/ft)
38.1	4.17	2.45	3.07
38.4	4.44	2.88	3.07
39.0	4.91	3.62	3.07
39.6	5.37	4.39	3.07
56.2	10.38	3.51	3.89
56.5	11.02	4.14	4.57
57.1	12.10	5.24	4.67
57.7	13.18	6.38	4.67
68.3	16.86	4.46	4.49
68.6	17.86	5.27	5.17
69.2	19.55	6.71	5.87
69.8	21.23	7.80	5.87

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
4"	22	507	362	268	204	158	124	98	78	62
	20	601	431	321	246	192	145	112	88	70
	18	765	552	413	294	214	161	124	97	78
	16	935	676	458	321	234	176	135	106	85
5½"	22	724	517	382	290	224	175	138	110	87
	20	863	619	460	352	274	217	173	139	112
	18	1106	798	597	460	361	289	233	190	156
	16	1360	983	739	572	452	364	296	244	202
6½"	22	923	660	489	372	288	226	179	142	113
	20	1103	792	590	452	353	280	224	181	146
	18	1421	1025	769	593	467	374	303	248	204
	16	1663	1203	904	700	554	445	363	299	248

Notes:

1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Strength Web Based Solutions for alternate slabs or LRFD design.

PLW2™-36/W2-36 FORMLOK® DECK-SLABS
LIGHT WEIGHT CONCRETE (110 pcf)

Maximum Unshored Spans / Composite Deck-Slab Properties

Slab Depth			Maximum Unshored Construction Clear Span			Concrete + Deck	Deflection	Moment	Shear
Total	Topping	Deck Gage	1	2	3	(psf)	$I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	M_{no}/Ω (kip-ft/ft)	V_{no}/Ω (kip/ft)
4"	2"	22	8'-7"	9'-11"	10'-3"	29.3	3.21	2.34	2.70
		20	10'-4"	11'-3"	11'-8"	29.6	3.45	2.74	3.07
		18	11'-6"	13'-6"	13'-5"	30.2	3.85	3.43	3.07
		16	12'-1"	15'-0"	14'-2"	30.8	4.24	4.14	3.07
4½"	2½"	22	8'-3"	9'-6"	9'-9"	33.9	4.47	2.68	2.89
		20	9'-10"	10'-10"	11'-2"	34.2	4.80	3.13	3.57
		18	11'-0"	12'-11"	13'-0"	34.8	5.34	3.93	3.57
		16	11'-8"	14'-7"	13'-8"	35.4	5.87	4.74	3.57
5¼"	3¼"	22	7'-9"	8'-11"	9'-2"	40.8	6.93	3.20	3.20
		20	9'-3"	10'-2"	10'-6"	41.1	7.42	3.76	3.88
		18	10'-5"	12'-3"	12'-5"	41.7	8.24	4.72	4.39
		16	11'-2"	13'-11"	13'-2"	42.3	9.04	5.72	4.39

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
4"	22	491	353	263	192	140	105	81	63	51
	20	579	418	294	206	150	113	87	68	54
	18	732	490	328	230	168	126	97	76	61
	16	858	540	361	254	185	139	107	84	67
4½"	22	560	402	300	230	180	143	113	88	71
	20	662	477	357	275	209	157	121	95	76
	18	837	606	455	320	233	175	135	106	85
	16	1018	738	500	351	256	192	148	116	93
5¼"	22	670	481	359	275	215	170	136	110	89
	20	793	572	428	329	259	207	167	136	112
	18	1007	729	548	424	336	270	208	163	131
	16	1228	891	672	522	395	296	228	179	144

Notes:

1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Strength Web Based Solutions for alternate slabs or LRFD design.

PLW2-36/W2-36 FormLok Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage: WWR (OR)	Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3): 4D 65/60BG
Normal Weight Concrete (145 pcf)					
4	**2**	0.93	0.028	6x6-W1.4xW1.4	23
4½	**2½**	1.08	0.028	6x6-W1.4xW1.4	18
5	**3**	1.24	0.028	6x6-W1.4xW1.4	15
5½	**3½**	1.39	0.032	6x6-W2.1xW2.1	15
6½	**4½**	1.70	0.041	6x6-W2.1xW2.1	15
Light Weight Concrete (110 pcf)					
4	**2**	0.93	0.028	6x6-W1.4xW1.4	33
4½	**2½**	1.08	0.028	6x6-W1.4xW1.4	25
5¼	**3¼**	1.31	0.029	6x6-W2.1xW2.1	20
6¼	**4¼**	1.62	0.038	6x6-W2.1xW2.1	20

Notes:

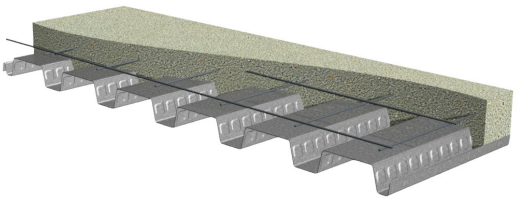
1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@beckaert.com

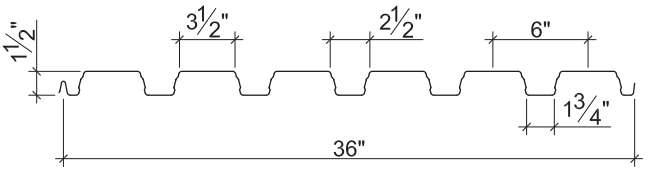
PLB™-36/B-36 FORMLOK® COMPOSITE DECKS
GRADE 50 STEEL

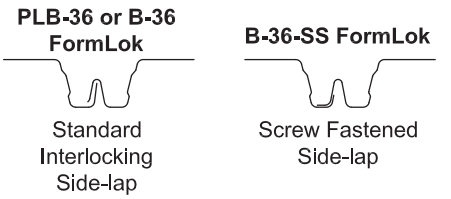
B FORMLOK DECKS

- **PLB-36 FormLok Deck used with PunchLok® II System**
- **B-36 FormLok Deck used with TSWs or BPs**
- **B-36-SS FormLok Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	1.9	0.0299	50	0.178	0.192	0.176	0.188	2688
20	2.3	0.0359	50	0.219	0.231	0.230	0.237	3220
18	2.9	0.0478	50	0.302	0.306	0.314	0.331	4264
16	3.5	0.0598	50	0.381	0.381	0.399	0.410	5302

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"
22	850	934	1075	1163	1558	1670	893	962	1077	1149	1933	2082
20	1188	1301	1492	1609	2189	2339	1316	1413	1575	1675	2743	2946
18	2001	2182	2485	2667	3714	3949	2388	2550	2822	2986	4713	5038
16	3006	3264	3698	3954	5604	5935	3775	4015	4419	4657	7164	7627

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer bottom optional
- ASTM A1008 SS GR50 Min. with gray primer bottom
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI C-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Factory Vent Tabs

PLB™-36/B-36 FORMLOK® DECK-SLABS
NORMAL WEIGHT CONCRETE (145 pcf)

Maximum Unshored Spans

Composite Deck-Slab Properties

Slab Depth			Maximum Unshored Construction Clear Span			Concrete + Deck	Deflection	Moment	Shear
Total	Topping	Deck Gage	1	2	3	(psf)	$I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	M_{no}/Ω (kip-ft/ft)	V_{no}/Ω (kip/ft)
3½"	2"	22	6'-7"	7'-9"	7'-10"	32.5	2.68	1.89	2.01
		20	7'-10"	9'-2"	9'-4"	32.9	2.88	2.20	2.01
		18	9'-0"	10'-9"	11'-2"	33.5	3.22	2.78	2.01
		16	9'-8"	11'-11"	11'-9"	34.1	3.53	3.32	2.01
5"	3½"	22	5'-9"	6'-9"	6'-10"	50.6	7.74	3.36	3.29
		20	6'-10"	8'-0"	8'-1"	51.0	8.28	3.95	3.29
		18	7'-10"	9'-5"	9'-8"	51.6	9.24	5.06	3.29
		16	8'-5"	10'-5"	10'-5"	52.2	10.10	6.11	3.29
6"	4½"	22	5'-4"	6'-3"	6'-4"	62.7	13.32	4.43	4.27
		20	6'-4"	7'-5"	7'-6"	63.1	14.20	5.22	4.27
		18	7'-4"	8'-8"	9'-0"	63.7	15.79	6.72	4.27
		16	7'-11"	9'-8"	9'-9"	64.3	17.22	8.16	4.27

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
3½"	22	911	571	387	275	203	154	117	88	67
	20	974	671	456	326	242	172	125	94	72
	18	973	772	584	410	275	193	140	105	81
	16	973	771	637	450	301	211	154	115	89
5"	22	1593	1023	695	497	369	281	218	171	135
	20	1592	1212	826	593	442	338	264	209	168
	18	1592	1263	1044	774	580	448	353	282	229
	16	1591	1262	1043	887	711	551	436	331	255
6"	22	2074	1353	920	659	490	374	291	229	183
	20	2073	1606	1096	788	589	452	354	281	226
	18	2073	1645	1360	1034	776	600	474	380	309
	16	2072	1645	1360	1156	956	742	588	475	389

Notes:

1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Strength Web Based Solutions for alternate slabs or LRFD design.

Maximum Unshored Spans

Composite Deck-Slab Properties

Slab Depth			Maximum Unshored Construction Clear Span			Concrete + Deck	Deflection	Moment	Shear
Total	Topping	Deck Gage	1	2	3	(psf)	$I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	M_{no}/Ω (kip-ft/ft)	V_{no}/Ω (kip/ft)
3½"	2"	22	7'-1"	8'-5"	8'-6"	25.1	2.10	1.78	2.01
		20	8'-7"	10'-0"	10'-2"	25.5	2.26	2.07	2.01
		18	9'-10"	11'-8"	11'-11"	26.1	2.55	2.59	2.01
		16	10'-6"	12'-11"	12'-6"	26.7	2.80	3.07	2.01
4"	2½"	22	6'-10"	8'-0"	8'-1"	29.7	3.11	2.22	2.41
		20	8'-2"	9'-6"	9'-8"	30.1	3.35	2.58	2.41
		18	9'-4"	11'-2"	11'-6"	30.7	3.77	3.26	2.41
		16	10'-0"	12'-4"	12'-1"	31.3	4.14	3.89	2.41
4¾"	3¼"	22	6'-5"	7'-6"	7'-7"	36.6	5.16	2.96	3.06
		20	7'-8"	8'-11"	9'-1"	37.0	5.55	3.46	3.06
		18	8'-9"	10'-6"	10'-10"	37.6	6.25	4.39	3.06
		16	9'-5"	11'-8"	11'-6"	38.2	6.86	5.27	3.06

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
3½"	22	866	545	371	265	178	125	91	68	53
	20	981	636	434	288	193	135	98	74	57
	18	981	779	515	324	217	152	111	83	64
	16	980	779	566	356	238	167	122	91	70
4"	22	1078	679	462	332	247	186	135	102	78
	20	1175	796	543	391	285	200	146	109	84
	18	1175	933	693	480	321	226	164	123	95
	16	1174	933	772	527	353	248	180	135	104
4¾"	22	1442	909	620	446	333	255	200	158	127
	20	1492	1069	731	527	395	304	239	182	140
	18	1491	1185	938	679	511	374	273	205	158
	16	1491	1185	981	822	585	411	299	225	173

Notes:

1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Strength Web Based Solutions for alternate slabs or LRFD design.

PLB-36/B-36 FormLok Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage: WWR (OR)	Recommended Reinforcing for Temperature and Shrinkage: Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3) 4D 65/60BG
Normal Weight Concrete (145 pcf)					
3½	2	0.78	0.028	6x6-W1.4xW1.4	23
4	2½	0.94	0.028	6x6-W1.4xW1.4	18
4½	3	1.09	0.028	6x6-W1.4xW1.4	15
5	3½	1.24	0.032	6x6-W2.1xW2.1	15
6	4½	1.55	0.041	6x6-W2.1xW2.1	15
Light Weight Concrete (110 pcf)					
3½	2	0.78	0.028	6x6-W1.4xW1.4	33
4	2½	0.94	0.028	6x6-W1.4xW1.4	25
4¾	3¼	1.17	0.029	6x6-W2.1xW2.1	20
5¾	4¼	1.48	0.038	6x6-W2.1xW2.1	20

Notes:

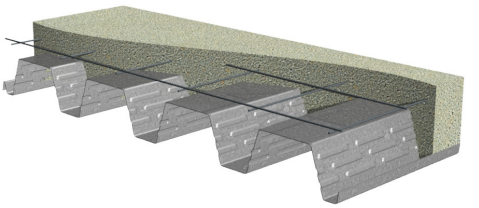
1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@beckaert.com

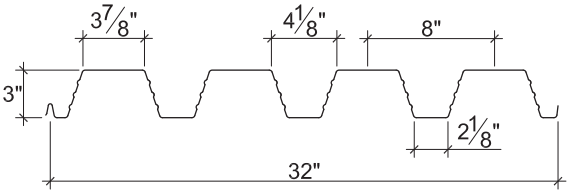
PLN3™-32/N3-32 FORMLOK® COMPOSITE DECKS
GRADE 50 STEEL

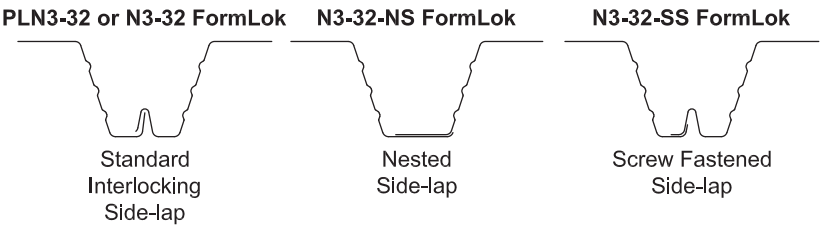
N3 FORMLOK DECKS

- **PLN3-32 FormLok Deck used with PunchLok® II System**
- **N3-32 FormLok Deck used with TSWs or BPs**
- **N3-32-NS FormLok Deck used with Side-lap Screws**
- **N3-32-SS FormLok Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)
20	2.4	0.0359	50	0.890	0.953	0.452	0.509	3829
18	3.1	0.0478	50	1.229	1.273	0.671	0.722	6823
16	3.9	0.0598	50	1.570	1.587	0.883	0.932	9108

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
20	794	870	997	1104	1737	2153	811	871	971	1055	2065	2596
18	1359	1481	1687	1860	2940	3682	1520	1623	1797	1943	3573	4547
16	2062	2240	2537	2788	4428	5495	2453	2609	2871	3092	5455	6883

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer bottom optional
- ASTM A1008 SS GR50 Min. with gray primer bottom
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI C-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Factory Vent Tabs

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
5"	2"	20	11'-4"	12'-7"	13'-0"
		18	12'-10"	14'-11"	15'-2"
		16	13'-7"	16'-10"	16'-0"
6½"	3½"	20	9'-11"	11'-1"	11'-5"
		18	11'-10"	13'-2"	13'-7"
		16	12'-6"	14'-11"	14'-8"
7½"	4½"	20	9'-2"	10'-4"	10'-8"
		18	11'-3"	12'-4"	12'-9"
		16	12'-0"	13'-11"	14'-1"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment M_{no}/Ω (kip-ft/ft)	Shear V_{no}/Ω (kip/ft)
40.7	7.31	3.80	3.12
41.4	8.12	4.84	3.12
42.2	8.87	5.83	3.12
58.9	15.64	5.23	4.59
59.6	17.32	6.70	4.59
60.4	18.86	8.10	4.59
71.0	23.86	6.27	5.70
71.7	26.37	8.07	5.70
72.5	28.66	9.78	5.70

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"
5"	20	433	334	262	210	170	138	114	94	77
	18	563	436	345	266	205	161	129	105	86
	16	686	531	387	291	224	176	141	114	94
6½"	20	595	457	359	287	231	188	154	127	104
	18	778	602	476	383	312	257	214	178	149
	16	952	739	587	475	389	323	270	227	192
7½"	20	713	548	430	343	277	225	185	152	125
	18	936	725	573	461	376	310	257	215	180
	16	1149	893	709	573	470	390	326	275	233

Notes:

1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Strength Web Based Solutions for alternate slabs or LRFD design.

Maximum Unshored Spans

Slab Depth		Deck Gage	Maximum Unshored Construction Clear Span		
Total	Topping		1	2	3
5"	2"	20	12'-6"	13'-9"	14'-2"
		18	13'-9"	16'-3"	16'-3"
		16	14'-6"	18'-1"	17'-0"
5½"	2½"	20	11'-11"	13'-2"	13'-7"
		18	13'-4"	15'-8"	15'-9"
		16	14'-1"	17'-7"	16'-6"
6¼"	3¼"	20	11'-3"	12'-5"	12'-10"
		18	12'-9"	14'-9"	15'-1"
		16	13'-6"	16'-8"	15'-10"

Composite Deck-Slab Properties

Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment M_{no}/Ω (kip-ft/ft)	Shear V_{no}/Ω (kip/ft)
31.5	5.67	3.60	3.12
32.2	6.38	4.56	3.12
33.0	7.03	5.47	3.12
36.1	7.43	4.03	3.58
36.8	8.34	5.11	3.58
37.6	9.16	6.13	3.58
43.0	10.75	4.74	4.32
43.7	12.05	6.02	4.32
44.5	13.21	7.23	4.32

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"
5"	20	418	323	247	186	143	112	90	73	60
	18	538	382	278	209	161	126	101	82	68
	16	599	421	307	230	177	139	111	90	74
5½"	20	467	361	286	230	187	147	118	96	79
	18	602	468	364	274	211	165	132	108	89
	16	728	549	400	300	231	182	145	118	97
6¼"	20	549	424	335	270	220	181	150	125	105
	18	709	551	438	354	290	239	191	155	128
	16	859	669	533	433	333	262	210	171	140

Notes:

1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Strength Web Based Solutions for alternate slabs or LRFD design.

PLN3-32/N3-32 FormLok Deck-Slab Information

f'_c = 3000 psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage		
				WWR	(OR)	Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3)
						4D 65/60BG
Normal Weight Concrete (145 pcf)						
5	**2**	0.98	0.028	6x6-W1.4xW1.4		23
5½	**2½**	1.13	0.028	6x6-W1.4xW1.4		18
6	**3**	1.29	0.028	6x6-W1.4xW1.4		15
6½	**3½**	1.44	0.032	6x6-W2.1xW2.1		15
7½	**4½**	1.75	0.041	6x6-W2.1xW2.1		15
Light Weight Concrete (110 pcf)						
5	**2**	0.98	0.028	6x6-W1.4xW1.4		33
5½	**2½**	1.13	0.028	6x6-W1.4xW1.4		25
6¼	**3¼**	1.37	0.029	6x6-W2.1xW2.1		20
7¼	**4¼**	1.67	0.038	6x6-W2.1xW2.1		20

Notes:

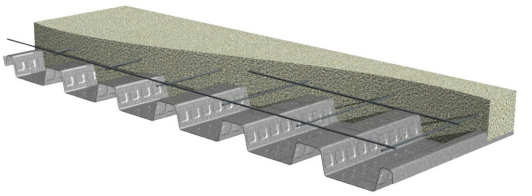
1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@beckaert.com

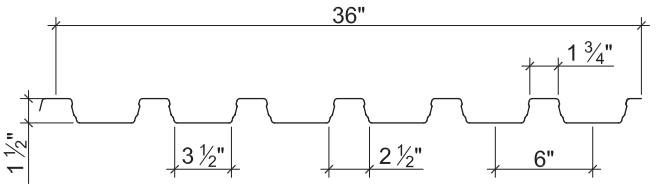
BR-36 FORMLOK® COMPOSITE DECKS
GRADE 50 STEEL

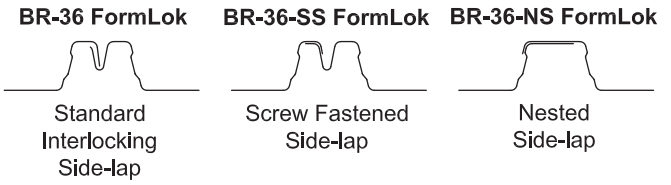
BR FORMLOK DECKS

- **BR-36 FormLok Deck used with Welded Side-laps**
- **BR-36-SS FormLok Deck used with Side-lap Screws**
- **BR-36-NS FormLok Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	1.9	0.0299	50	0.192	0.178	0.188	0.176	2688
20	2.3	0.0359	50	0.231	0.219	0.237	0.230	3220
18	2.9	0.0478	50	0.306	0.302	0.331	0.314	4264
16	3.5	0.0598	50	0.381	0.381	0.410	0.399	5302

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"
22	850	934	1075	1163	1558	1670	893	962	1077	1149	1933	2082
20	1188	1301	1492	1609	2189	2339	1316	1413	1575	1675	2743	2946
18	2001	2182	2485	2667	3714	3949	2388	2550	2822	2986	4713	5038
16	3006	3264	3698	3954	5604	5935	3775	4015	4419	4657	7164	7627

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer bottom optional
- ASTM A1008 SS GR50 Min. with gray primer bottom
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI C-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Factory Vent Tabs

Maximum Unshored Spans

Composite Deck-Slab Properties

Slab Depth		Deck Gage	Maximum Unshored Construction Clear Span			Concrete + Deck	Deflection $I_d = (I_{cr}+I_u)/2$	Moment M_{no}/Ω	Shear V_{no}/Ω
Total	Topping		1	2	3	(psf)	(in^4/ft)	(kip-ft/ft)	(kip/ft)
3½"	2"	22	6'-7"	7'-7"	7'-10"	37.8	3.49	2.70	3.36
		20	7'-8"	8'-8"	8'-11"	38.2	3.73	3.17	3.36
		18	8'-7"	10'-1"	10'-5"	38.8	4.16	4.05	3.36
		16	9'-3"	11'-3"	11'-4"	39.4	4.55	4.88	3.36
5"	3½"	22	5'-10"	6'-8"	6'-10"	55.9	9.49	3.98	5.06
		20	6'-9"	7'-7"	7'-10"	56.3	10.11	4.70	5.21
		18	7'-8"	8'-10"	9'-2"	56.9	11.22	6.06	5.21
		16	8'-2"	9'-11"	10'-2"	57.5	12.22	7.38	5.21
6"	4½"	22	5'-5"	6'-2"	6'-5"	68.0	15.87	5.08	5.62
		20	6'-4"	7'-1"	7'-4"	68.4	16.85	6.00	6.11
		18	7'-2"	8'-3"	8'-6"	69.0	18.64	7.78	6.33
		16	7'-9"	9'-3"	9'-6"	69.6	20.27	9.49	6.33

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
3½"	22	1312	826	562	403	297	209	152	114	88
	20	1545	975	665	475	318	223	163	122	94
	18	1639	1257	842	530	355	249	182	136	105
	16	1638	1303	920	579	388	272	198	149	115
5"	22	1934	1218	828	594	441	337	262	207	165
	20	2292	1446	987	710	530	407	319	254	204
	18	2545	1883	1290	933	701	542	428	344	280
	16	2544	2024	1581	1146	864	670	532	401	309
6"	22	2469	1556	1059	760	566	433	338	267	213
	20	2931	1851	1264	911	681	524	411	328	264
	18	3094	2419	1659	1200	903	699	553	445	363
	16	3094	2461	2038	1479	1116	867	689	557	457

Notes:

1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Strength Web Based Solutions for alternate slabs or LRFD design.

BR-36 FORMLOK® DECK-SLABS
LIGHT WEIGHT CONCRETE (110 pcf)

Maximum Unshored Spans / Composite Deck-Slab Properties

Slab Depth			Maximum Unshored Construction Clear Span			Concrete + Deck	Deflection	Moment	Shear
Total	Topping	Deck Gage	1	2	3	(psf)	$I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	M_{no}/Ω (kip-ft/ft)	V_{no}/Ω (kip/ft)
3½"	2"	22	7'-2"	8'-3"	8'-6"	29.1	2.71	2.58	3.36
		20	8'-5"	9'-5"	9'-9"	29.5	2.91	3.02	3.36
		18	9'-5"	10'-11"	11'-4"	30.1	3.27	3.84	3.36
		16	10'-1"	12'-3"	12'-1"	30.7	3.58	4.60	3.36
4"	2½"	22	6'-10"	7'-11"	8'-2"	33.7	3.92	2.97	3.94
		20	8'-0"	9'-0"	9'-4"	34.1	4.21	3.48	3.95
		18	9'-0"	10'-6"	10'-10"	34.7	4.72	4.44	3.95
		16	9'-8"	11'-9"	11'-9"	35.3	5.17	5.34	3.95
4¾"	3¼"	22	6'-6"	7'-6"	7'-8"	40.6	6.32	3.58	4.29
		20	7'-7"	8'-6"	8'-10"	41.0	6.78	4.20	4.77
		18	8'-6"	9'-11"	10'-3"	41.6	7.59	5.39	4.88
		16	9'-1"	11'-1"	11'-3"	42.2	8.31	6.52	4.88

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Allowable Load, W_n/Ω, Limited by L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)								
		4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
3½"	22	1261	797	544	344	230	162	118	88	68
	20	1479	936	588	370	248	174	127	95	73
	18	1648	1142	661	416	278	195	142	107	82
	16	1647	1251	724	456	305	214	156	117	90
4"	22	1453	917	627	451	334	234	171	128	99
	20	1707	1080	739	534	359	252	183	138	106
	18	1937	1386	952	601	402	283	206	155	119
	16	1937	1542	1045	658	441	309	225	169	130
4¾"	22	1747	1103	754	543	406	312	245	195	158
	20	2060	1304	893	645	484	374	295	222	171
	18	2398	1684	1156	838	632	455	331	249	192
	16	2397	1909	1407	1022	709	498	363	272	210

Notes:

1. For high loads long term concrete creep should be considered.
2. See Composite Deck-Slab Strength Web Based Solutions for alternate slabs or LRFD design.

BR-36 FormLok Deck-Slab Information

f'_c = 3000 psi

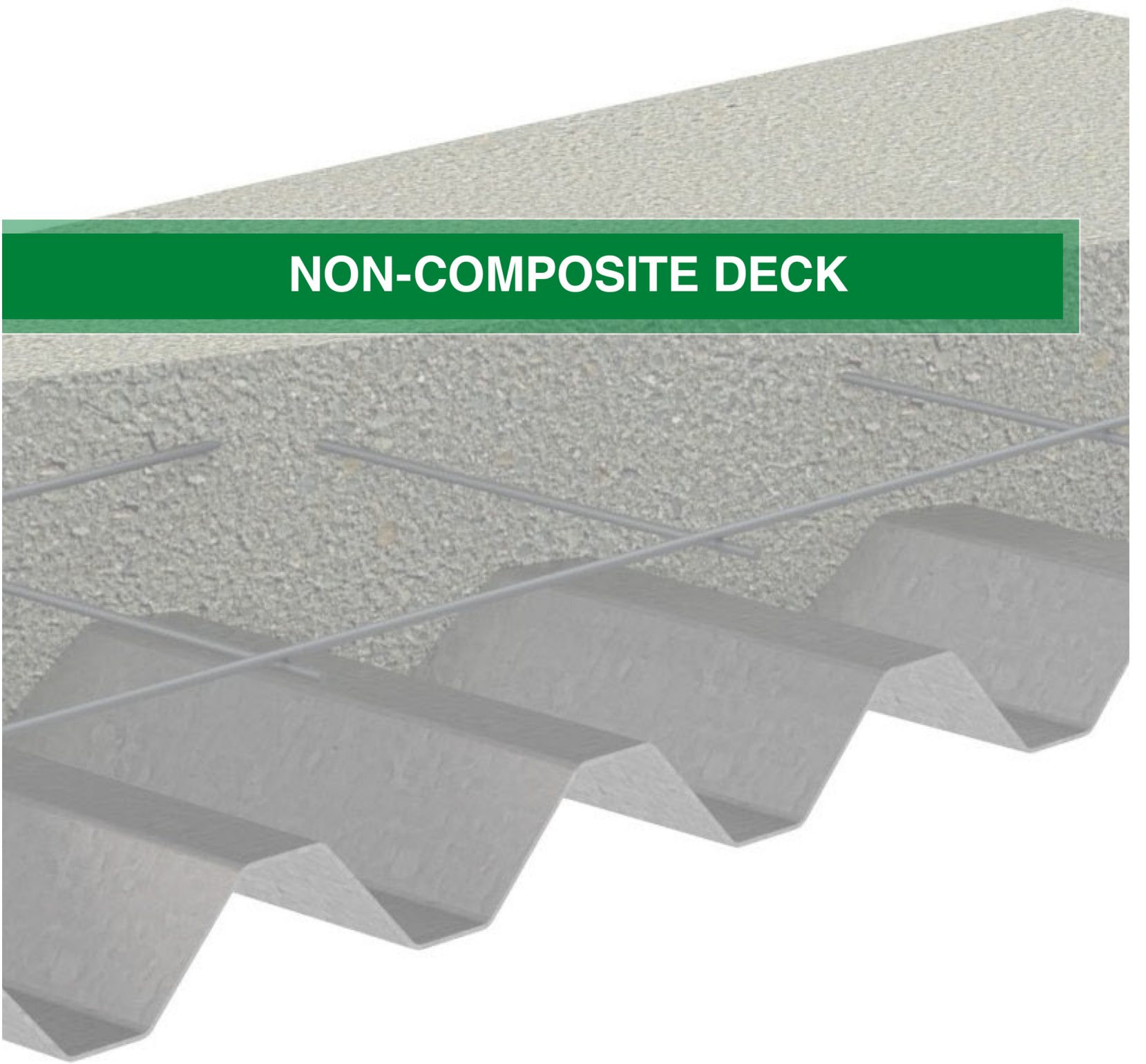
Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage: WWR (OR)	Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd^3): 4D 65/60BG
Normal Weight Concrete (145 pcf)					
3½	**2**	0.91	0.028	6x6-W1.4xW1.4	23
4	**2½**	1.07	0.028	6x6-W1.4xW1.4	18
4½	**3**	1.22	0.028	6x6-W1.4xW1.4	15
5	**3½**	1.37	0.032	6x6-W2.1xW2.1	15
6	**4½**	1.68	0.041	6x6-W2.1xW2.1	15
Light Weight Concrete (110 pcf)					
3½	**2**	0.91	0.028	6x6-W1.4xW1.4	33
4	**2½**	1.07	0.028	6x6-W1.4xW1.4	25
4¾	**3¼**	1.30	0.029	6x6-W2.1xW2.1	20
5¾	**4¼**	1.61	0.038	6x6-W2.1xW2.1	20

Notes:

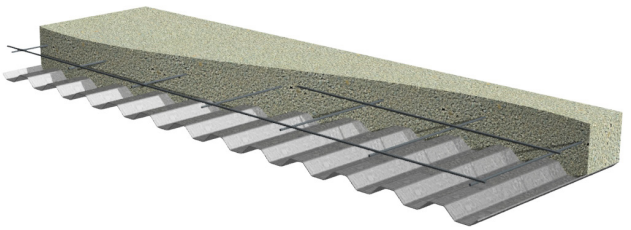
1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@beckaert.com

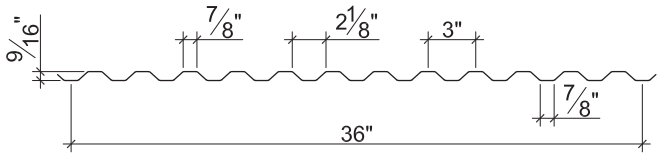
NON-COMPOSITE DECK



SHALLOW VERCOR® (SV) NON-COMPOSITE & ROOF DECK
GRADE 80 STEEL



Nominal Dimensions



Standard Nested Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 60 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øV$_n$ (lb/ft)
26	1.0	0.0179	60	0.013	0.013	0.041	0.043	2268
24	1.3	0.0239	60	0.018	0.018	0.059	0.059	3022
22	1.6	0.0299	60	0.022	0.022	0.073	0.073	3772
20	1.9	0.0359	60	0.027	0.027	0.087	0.087	4521

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	One-Flange Loading, End Bearing 2"	One-Flange Loading, Interior Bearing 1½"	One-Flange Loading, Interior Bearing 2"	Two-Flange Loading, End Bearing 1½"	Two-Flange Loading, End Bearing 2"	Two-Flange Loading, Interior Bearing 1½"	Two-Flange Loading, Interior Bearing 2"
26	890	986	1172	1282	819	890	1431	1577
24	1500	1654	2045	2227	1528	1652	2542	2788
22	2244	2466	3131	3396	2444	2632	3934	4297
20	3115	3413	4423	4782	3563	3825	5594	6092

Standard Features

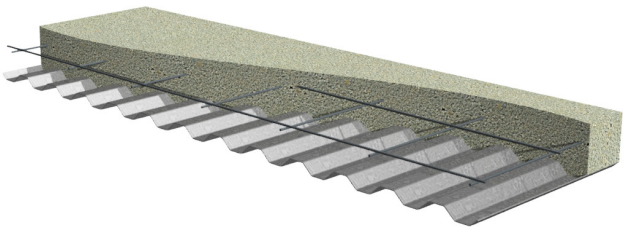
- ASTM A653 SS GR80 with G90
- Standard lengths – 6'-0" to 30'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI NC-2017 and RD-2017

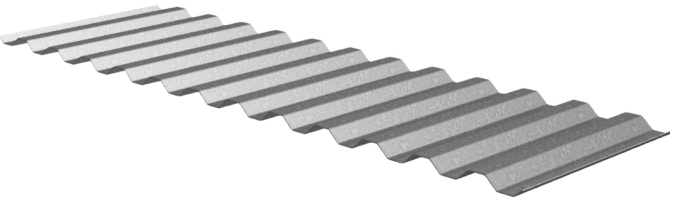
Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 30'-0"
- Side-lap Venting

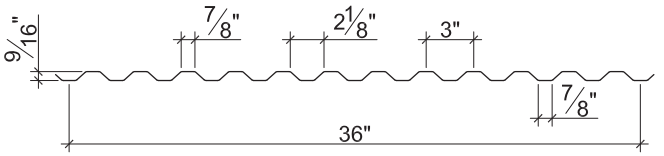
SHALLOW VERCOR® (SV) NON-COMPOSITE & ROOF DECK
GRADE 80 STEEL

ASD





Nominal Dimensions



Standard Nested Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 60 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)
26	1.0	0.0179	60	0.013	0.013	0.041	0.043	1492
24	1.3	0.0239	60	0.018	0.018	0.059	0.059	1988
22	1.6	0.0299	60	0.022	0.022	0.073	0.073	2482
20	1.9	0.0359	60	0.027	0.027	0.087	0.087	2974

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	One-Flange Loading, End Bearing 2"	One-Flange Loading, Interior Bearing 1½"	One-Flange Loading, Interior Bearing 2"	Two-Flange Loading, End Bearing 1½"	Two-Flange Loading, End Bearing 2"	Two-Flange Loading, Interior Bearing 1½"	Two-Flange Loading, Interior Bearing 2"
26	582	644	788	862	535	582	962	1060
24	981	1081	1375	1497	999	1080	1709	1874
22	1467	1612	2105	2283	1597	1721	2644	2889
20	2036	2230	2974	3215	2329	2500	3761	4096

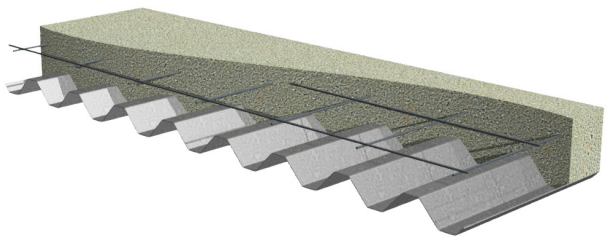
Standard Features

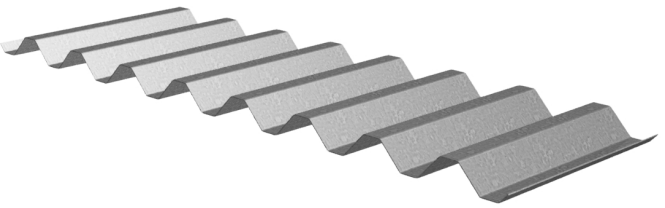
- ASTM A653 SS GR80 with G90
- Standard lengths – 6'-0" to 30'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI NC-2017 and RD-2017

Optional Features

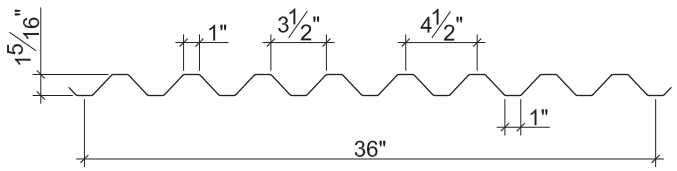
- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 30'-0"
- Side-lap Venting

DEEP VERCOR® (DV) NON-COMPOSITE & ROOF DECK
GRADE 80 STEEL





Nominal Dimensions



Standard Nested Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 60 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øV$_n$ (lb/ft)
26	1.1	0.0195	60	0.074	0.074	0.099	0.103	2340
24	1.4	0.0254	60	0.097	0.096	0.137	0.138	4353
22	1.7	0.0314	60	0.120	0.120	0.172	0.171	6641
20	2.1	0.0374	60	0.143	0.143	0.204	0.204	8087

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"
26	681	753	874	977	1233	1362	594	644	729	801	1446	1608
24	1115	1229	1419	1579	2033	2237	1080	1167	1312	1434	2444	2707
22	1649	1811	2082	2310	3018	3309	1717	1847	2066	2251	3686	4070
20	2273	2489	2851	3155	4171	4560	2495	2676	2980	3237	5151	5671

Standard Features

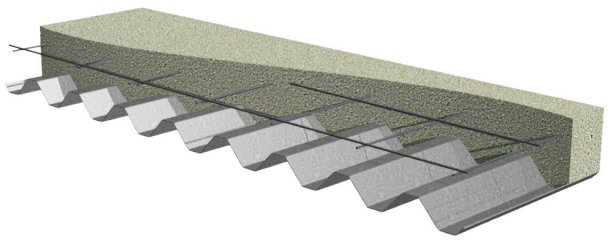
- ASTM A653 SS GR80 with G90
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI NC-2017 and RD-2017

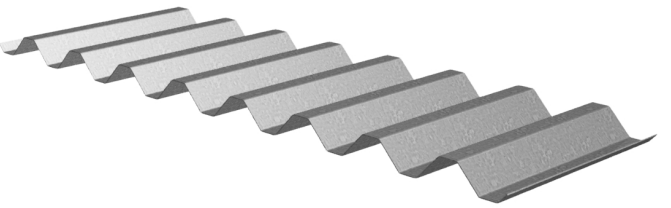
Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
- Side-lap Venting

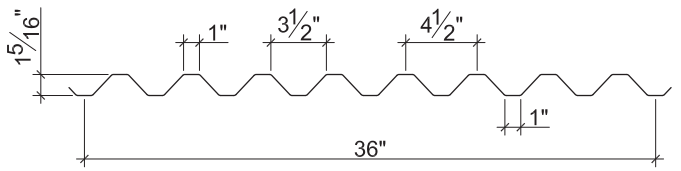
DEEP VERCOR® (DV) NON-COMPOSITE & ROOF DECK
GRADE 80 STEEL

ASD





Nominal Dimensions



Standard Nested Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 60 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)
26	1.1	0.0195	60	0.074	0.074	0.099	0.103	1539
24	1.4	0.0254	60	0.097	0.096	0.137	0.138	2864
22	1.7	0.0314	60	0.120	0.120	0.172	0.171	4369
20	2.1	0.0374	60	0.143	0.143	0.204	0.204	5321

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

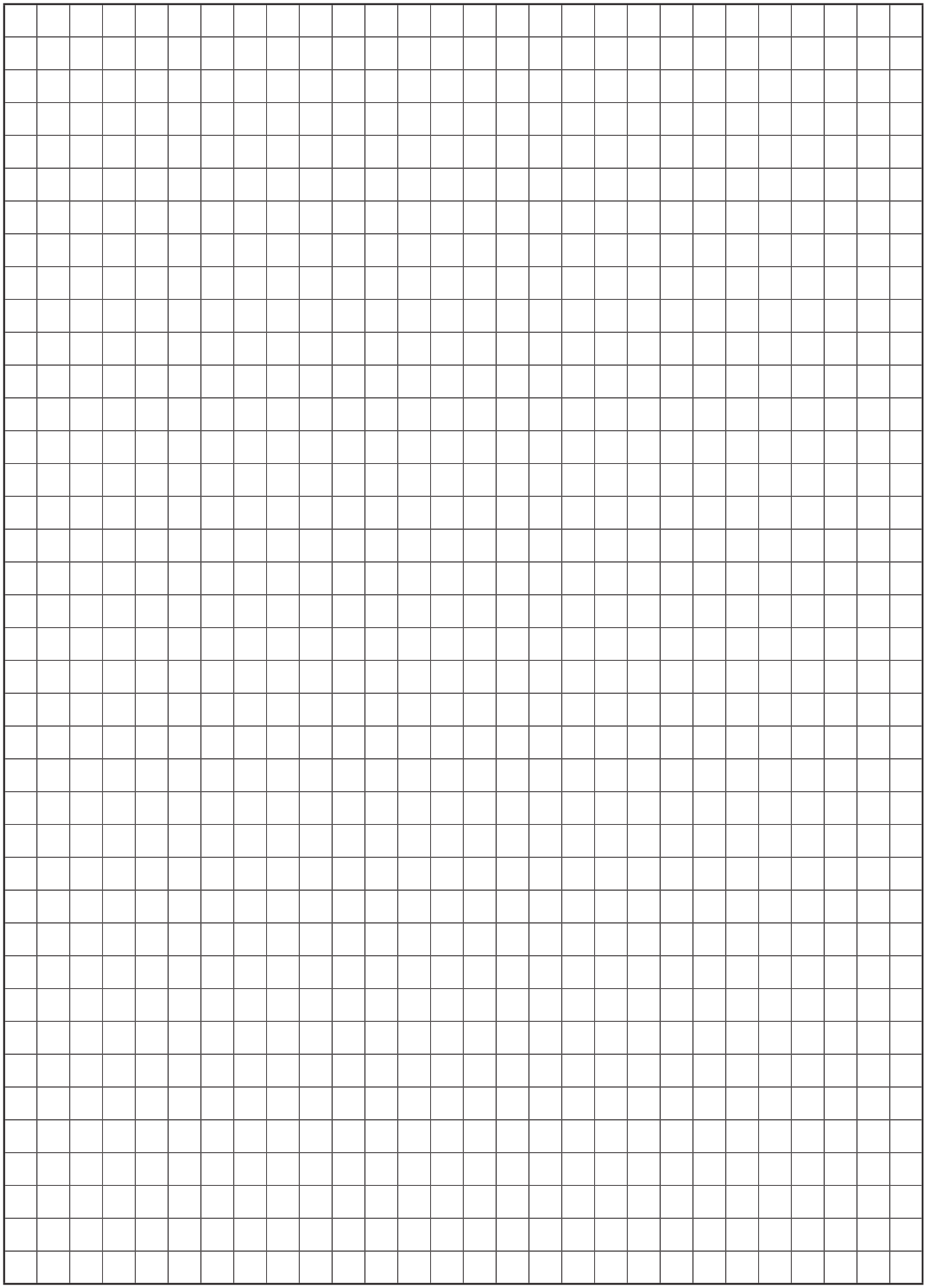
Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"
26	445	492	571	638	829	916	388	421	477	523	972	1081
24	729	803	927	1032	1366	1504	706	763	858	938	1643	1820
22	1078	1184	1361	1510	2029	2225	1122	1207	1350	1471	2478	2736
20	1486	1627	1863	2062	2804	3066	1631	1749	1948	2116	3463	3813

Standard Features

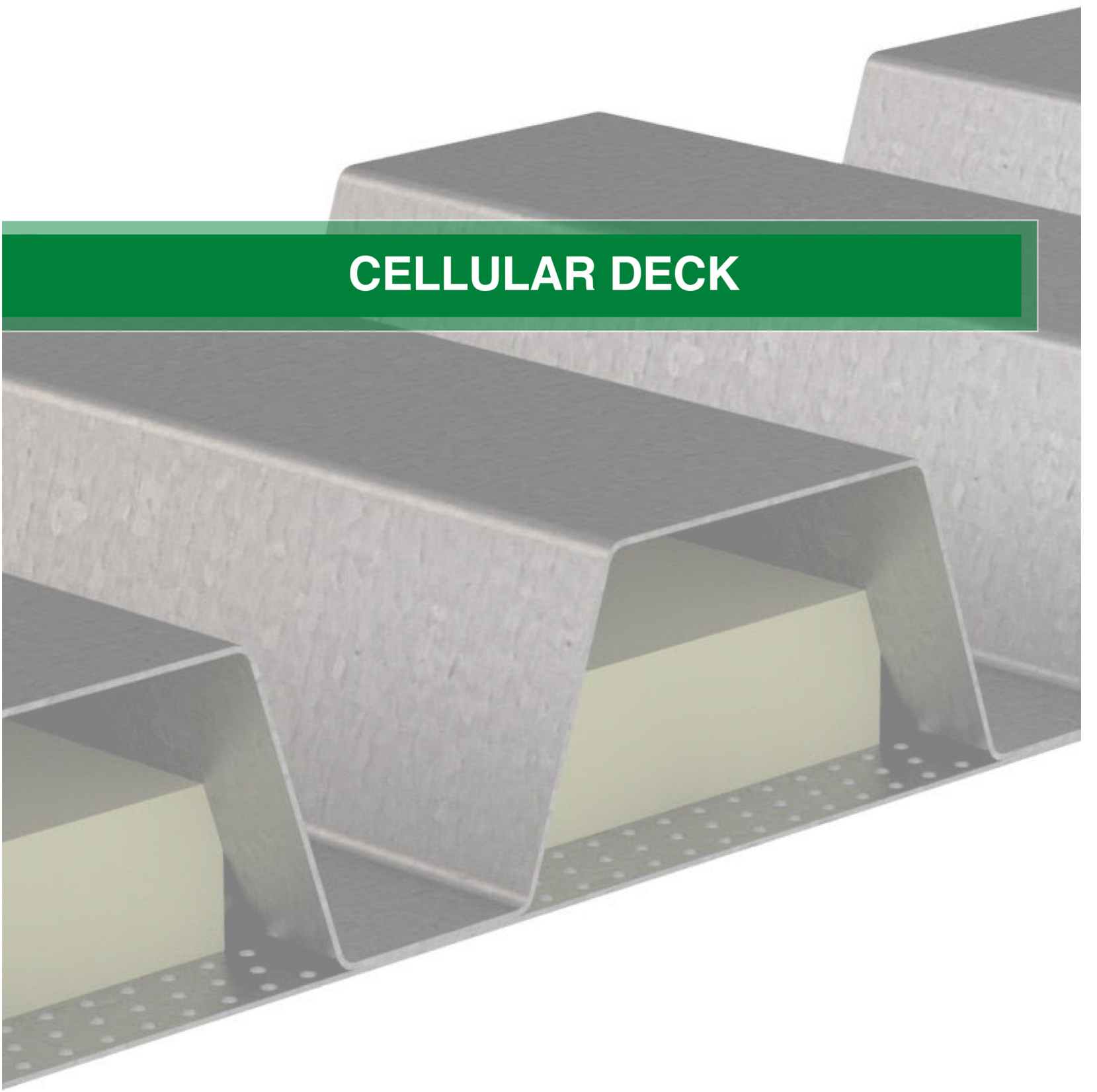
- ASTM A653 SS GR80 with G90
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI NC-2017 and RD-2017

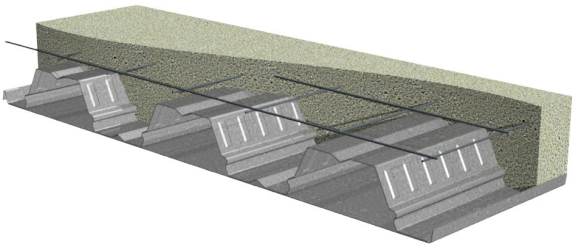
Optional Features

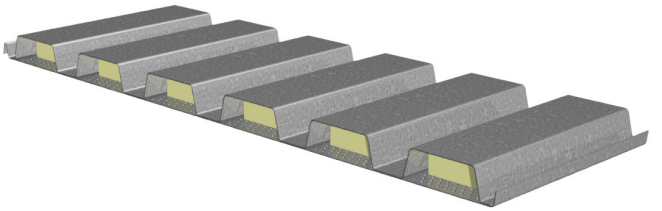
- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
- Side-lap Venting



CELLULAR DECK

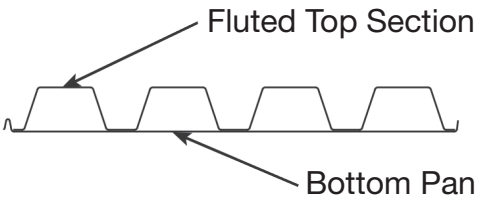






CELLULAR DECK DESIGN

Cellular and cellular acoustical decks may be designed for out-of-plane loads, shoring and diaphragm loads based on the published properties. Superimposed loads are based on the profile and gage of the fluted top section.



Cellular and cellular acoustical decks may be designed based on their fluted top sections ignoring the contribution of the bottom pan, in accordance with the guidelines below. Please contact your Verco representative if more detailed information is required.

Cellular Roof Decks

- Out-of-Plane Loads: Cellular and cellular acoustical decks may be designed for out-of-plane loads based on fluted deck of the same gage and profile as the fluted top section of the cellular deck.
- Diaphragm Design: Diaphragm shear strength and stiffness for cellular and cellular acoustical decks may be based on fluted deck of the same profile as the fluted top section but with the gage of the bottom pan.

Cellular FormLok® Composite Decks

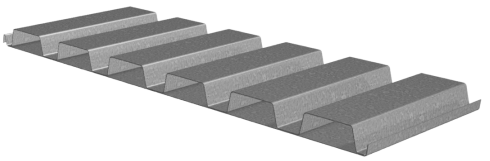
- Unshored Clear Spans: Determination of maximum unshored clear spans of cellular and cellular acoustical decks may be based on fluted deck of the same gage and profile as the fluted top section of the cellular deck.

Cellular FormLok® Composite Deck-Slabs

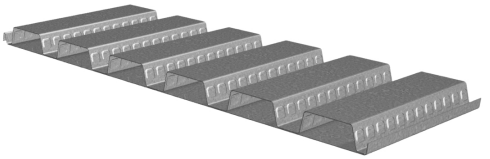
- Superimposed Loads: Superimposed loads for FormLok cellular and cellular acoustical composite decks with a given concrete type and thickness are based on FormLok composite deck of the same profile, gage and concrete as the fluted top section of the FormLok cellular deck.
- Diaphragm Design: Diaphragm shear strength and stiffness for FormLok cellular and cellular acoustical composite decks with a given concrete type and thickness may be based on fluted FormLok composite deck of the same profile as the fluted top section but with the gage of the bottom pan.

PLBCD/HSBCD/BCD CELLULAR DECK
GRADE 50 STEEL

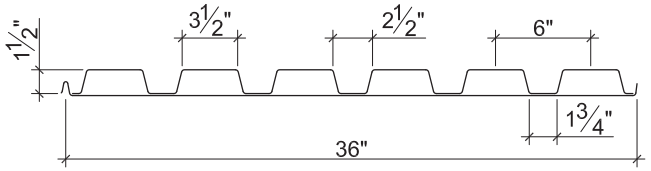
B CELLULAR ROOF DECK
- **PLBCD-36 Deck used with PunchLok® II System**
- **HSBCD-36 Deck used with TSWs or BPs**



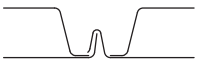
B CELLULAR FORMLOK® COMPOSITE DECK
- **PLBCD-36 FormLok Deck used with PunchLok® II System**
- **BCD-36 FormLok Deck used with TSWs or BPs**



Nominal Dimensions



PLBCD-36 or HSBCD-36



Standard Interlocking Side-lap

PLBCD-36 or BCD-36 FormLok

Standard Interlocking Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øVn (lb/ft)	Vertical Shear øVn End (lb/ft)	Vertical Shear øVn Interior (lb/ft)
20/20	3.6	0.0359/0.0359	50	0.416	0.336	0.279	0.382	4894	519	780
20/18	4.1	0.0359/0.0478	50	0.454	0.375	0.287	0.428	4894	486	564
18/20	4.1	0.0478/0.0359	50	0.535	0.419	0.417	0.453	6481	563	935
18/18	4.6	0.0478/0.0478	50	0.587	0.462	0.428	0.552	6481	790	1019
18/16	5.1	0.0478/0.0598	50	0.631	0.512	0.437	0.575	6481	750	800
16/18	5.3	0.0598/0.0478	50	0.704	0.547	0.587	0.629	8059	839	1156
16/16	5.8	0.0598/0.0598	50	0.759	0.599	0.599	0.700	8059	1096	1253

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

	Bearing Length of Webs											
	One-Flange Loading						Two-Flange Loading					
	End Bearing				Interior Bearing		End Bearing				Interior Bearing	
Deck Gage	**1½"**	**2"**	**3"**	**4"**	**3"**	**4"**	**1½"**	**2"**	**3"**	**4"**	**3"**	**4"**
20/XX	1817	1991	2282	2461	3256	3479	2014	2162	2410	2562	4081	4383
18/XX	3062	3338	3801	4080	5524	5874	3653	3902	4318	4569	7010	7493
16/XX	4599	4994	5658	6049	8336	8828	5775	6144	6761	7125	10656	11345

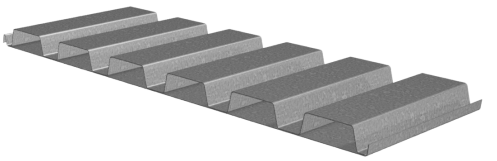
Standard Features
- ASTM A653 SS GR50 Min., with G60
- Standard lengths – 7'-6" to 30'-0"
- IAPMO UES ER-2018, UL, and FM Listed
- Tables conform to ANSI/SDI RD-2017 and C-2017

Optional Features
- Inquire regarding cost and lead times for:
  - -Sheet Lengths > 30'-0"
  - -Alternative metallic finishes
- Cellular Acoustical Versions

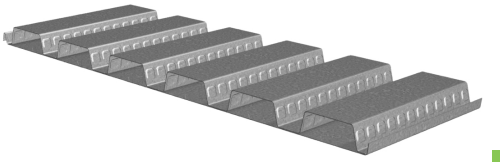
PLBCD/HSBCD/BCD CELLULAR DECK
GRADE 50 STEEL

ASD

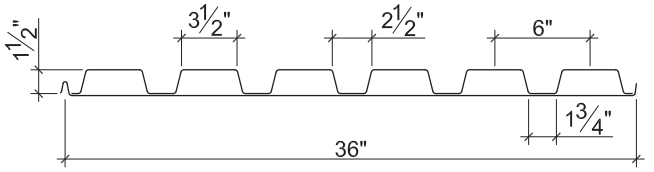
B CELLULAR ROOF DECK
- **PLBCD-36 Deck used with PunchLok® II System**
- **HSBCD-36 Deck used with TSWs or BPs**



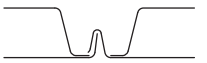
B CELLULAR FORMLOK® COMPOSITE DECK
- **PLBCD-36 FormLok Deck used with PunchLok® II System**
- **BCD-36 FormLok Deck used with TSWs or BPs**



Nominal Dimensions

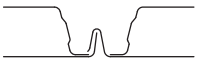


PLBCD-36 or HSBCD-36



Standard Interlocking Side-lap

PLBCD-36 or BCD-36 FormLok



Standard Interlocking Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)	Vertical Shear V_n/Ω End (lb/ft)	Interior (lb/ft)
20/20	3.6	0.0359/0.0359	50	0.416	0.336	0.279	0.382	3220	340	511
20/18	4.1	0.0359/0.0478	50	0.454	0.375	0.287	0.428	3220	318	369
18/20	4.1	0.0478/0.0359	50	0.535	0.419	0.417	0.453	4264	369	612
18/18	4.6	0.0478/0.0478	50	0.587	0.462	0.428	0.552	4264	517	667
18/16	5.1	0.0478/0.0598	50	0.631	0.512	0.437	0.575	4264	491	524
16/18	5.3	0.0598/0.0478	50	0.704	0.547	0.587	0.629	5302	549	757
16/16	5.8	0.0598/0.0598	50	0.759	0.599	0.599	0.700	5302	717	820

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"
20/XX	1188	1301	1492	1609	2189	2339	1316	1413	1575	1675	2743	2946
18/XX	2001	2182	2485	2667	3714	3949	2388	2550	2822	2986	4713	5038
16/XX	3006	3264	3698	3954	5604	5935	3775	4015	4419	4657	7164	7627

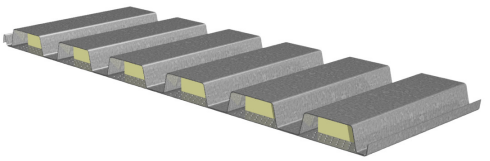
Standard Features
- ASTM A653 SS GR50 Min., with G60
- Standard lengths – 7'-6" to 30'-0"
- IAPMO UES ER-2018, UL, and FM Listed
- Tables conform to ANSI/SDI RD-2017 and C-2017

Optional Features
- Inquire regarding cost and lead times for:
  - -Sheet Lengths > 30'-0"
  - -Alternative metallic finishes
- Cellular Acoustical Versions

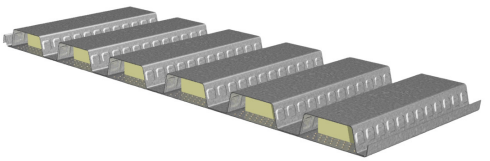
PLBCD/HSBCD/BCD CELLULAR ACOUSTICAL DECK
GRADE 50 STEEL

LRFD

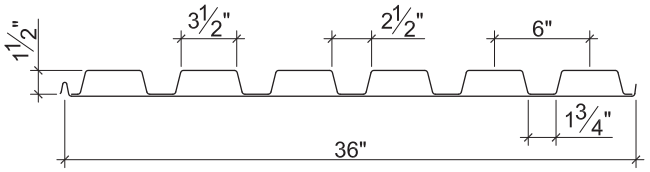
B CELLULAR ACOUSTICAL ROOF DECK
- **PLBCD-36 AC Deck used with PunchLok® II System**
- **HSBCD-36 AC Deck used with TSWs or BPs**



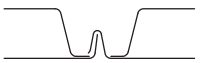
B CELLULAR ACOUSTICAL FORMLOK® COMPOSITE DECK
- **PLBCD-36 AC FormLok Deck used with PunchLok® II System**
- **BCD-36 AC FormLok Deck used with TSWs or BPs**



Nominal Dimensions



PLBCD-36 AC or HSBCD-36 AC



Standard Interlocking Side-lap

PLBCD-36 AC or BCD-36 AC FormLok

Standard Interlocking Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øVn (lb/ft)	Vertical Shear øVn End (lb/ft)	Interior (lb/ft)
20/20	3.6	0.0359/0.0359	50	0.405	0.365	0.277	0.382	4894	533	920
20/18	4.1	0.0359/0.0478	50	0.442	0.422	0.285	0.428	4894	497	699
18/20	4.1	0.0478/0.0359	50	0.520	0.450	0.414	0.453	6481	581	1076
18/18	4.6	0.0478/0.0478	50	0.570	0.511	0.425	0.552	6481	811	1231
18/16	5.1	0.0478/0.0598	50	0.614	0.578	0.434	0.575	6481	766	998
16/18	5.3	0.0598/0.0478	50	0.684	0.598	0.583	0.629	8059	865	1372
16/16	5.8	0.0598/0.0598	50	0.737	0.670	0.595	0.700	8059	1125	1539

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"
20/XX	1817	1991	2282	2461	3256	3479	2014	2162	2410	2562	4081	4383
18/XX	3062	3338	3801	4080	5524	5874	3653	3902	4318	4569	7010	7493
16/XX	4599	4994	5658	6049	8336	8828	5775	6144	6761	7125	10656	11345

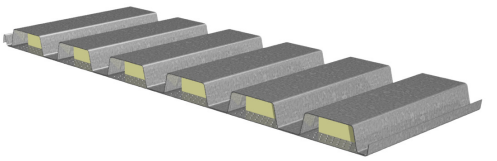
Standard Features
- ASTM A653 SS GR50 Min., with G60
- Standard lengths – 7'-6" to 30'-0"
- IAPMO UES ER-2018, UL, and FM Listed
- Tables conform to ANSI/SDI RD-2017 and C-2017

Optional Features
- Inquire regarding cost and lead times for:
  - -Sheet Lengths > 30'-0"
  - -Alternative metallic finishes

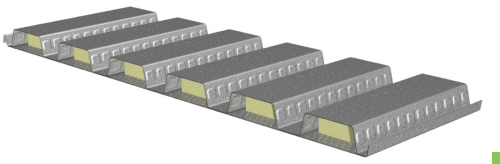
PLBCD/HSBCD/BCD CELLULAR ACOUSTICAL DECK
GRADE 50 STEEL

ASD

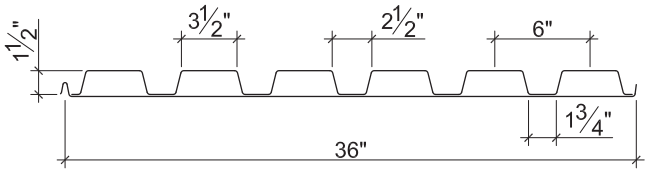
B CELLULAR ACOUSTICAL ROOF DECK
- **PLBCD-36 AC Deck used with PunchLok® II System**
- **HSBCD-36 AC Deck used with TSWs or BPs**



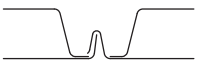
B CELLULAR ACOUSTICAL FORMLOK® COMPOSITE DECK
- **PLBCD-36 AC FormLok Deck used with PunchLok® II System**
- **BCD-36 AC FormLok Deck used with TSWs or BPs**



Nominal Dimensions

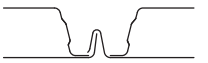


PLBCD-36 AC or HSBCD-36 AC



Standard Interlocking Side-lap

PLBCD-36 AC or BCD-36 AC FormLok



Standard Interlocking Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)	Vertical Shear V_n/Ω End (lb/ft)	Interior (lb/ft)
20/20	3.6	0.0359/0.0359	50	0.405	0.365	0.277	0.382	3220	349	602
20/18	4.1	0.0359/0.0478	50	0.442	0.422	0.285	0.428	3220	325	458
18/20	4.1	0.0478/0.0359	50	0.520	0.450	0.414	0.453	4264	380	705
18/18	4.6	0.0478/0.0478	50	0.570	0.511	0.425	0.552	4264	531	806
18/16	5.1	0.0478/0.0598	50	0.614	0.578	0.434	0.575	4264	502	653
16/18	5.3	0.0598/0.0478	50	0.684	0.598	0.583	0.629	5302	566	898
16/16	5.8	0.0598/0.0598	50	0.737	0.670	0.595	0.700	5302	736	1008

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	4"
20/XX	1188	1301	1492	1609	2189	2339	1316	1413	1575	1675	2743	2946
18/XX	2001	2182	2485	2667	3714	3949	2388	2550	2822	2986	4713	5038
16/XX	3006	3264	3698	3954	5604	5935	3775	4015	4419	4657	7164	7627

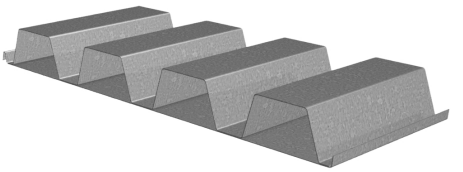
Standard Features
- ASTM A653 SS GR50 Min., with G60
- Standard lengths – 7'-6" to 30'-0"
- IAPMO UES ER-2018, UL, and FM Listed
- Tables conform to ANSI/SDI RD-2017 and C-2017

Optional Features
- Inquire regarding cost and lead times for:
  - -Sheet Lengths > 30'-0"
  - -Alternative metallic finishes

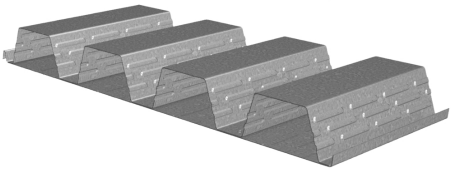
PLN3CD/HSN3CD/N3CD CELLULAR DECK
GRADE 50 STEEL

LRFD

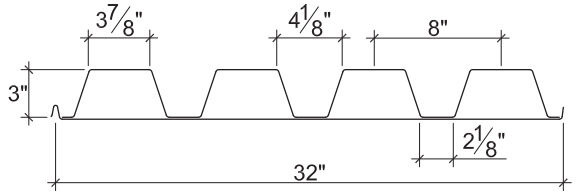
N3 CELLULAR ROOF DECK
- **PLN3CD-32 Deck used with PunchLok® II System**
- **HSN3CD-32 Deck used with TSWs or BPs**

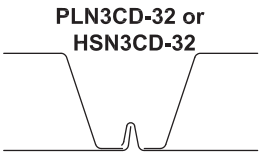


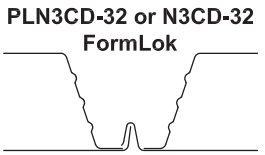
N3 CELLULAR FORMLOK® COMPOSITE DECK
- **PLN3CD-32 FormLok Deck used with PunchLok® II System**
- **N3CD-32 FormLok Deck used with TSWs or BPs**



Nominal Dimensions







Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øVn (lb/ft)	Vertical Shear øVn End (lb/ft)	Interior (lb/ft)
20/20	3.9	0.0359/0.0359	50	1.579	1.353	0.505	0.709	5821	807	1811
20/18	4.4	0.0359/0.0478	50	1.716	1.550	0.503	0.801	5821	747	1141
18/20	4.6	0.0478/0.0359	50	2.017	1.684	0.804	0.869	10371	885	2196
18/18	5.1	0.0478/0.0478	50	2.194	1.897	0.824	1.030	10371	1227	2178
18/16	5.7	0.0478/0.0598	50	2.346	2.149	0.829	1.077	10371	1154	1689
16/18	5.9	0.0598/0.0478	50	2.652	2.236	1.107	1.210	13843	1316	2573
16/16	6.4	0.0598/0.0598	50	2.838	2.505	1.129	1.314	13843	1703	2649

Design Reactions at Supports Based on Web Crippling, $øR_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
20/XX	1215	1331	1525	1690	2584	3203	1241	1332	1485	1614	3072	3861
18/XX	2079	2266	2581	2846	4374	5476	2325	2484	2749	2973	5315	6763
16/XX	3155	3427	3882	4266	6586	8173	3752	3992	4393	4731	8115	10239

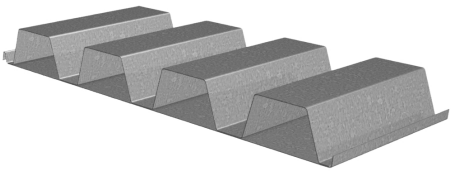
Standard Features
- ASTM A653 SS GR50 Min., with G60
- Standard lengths – 7'-6" to 30'-0"
- IAPMO UES ER-2018, UL, and FM Listed
- Tables conform to ANSI/SDI RD-2017 and C-2017

Optional Features
- Inquire regarding cost and lead times for:
  - -Sheet Lengths > 30'-0"
  - -Alternative metallic finishes
- Cellular Acoustical Versions

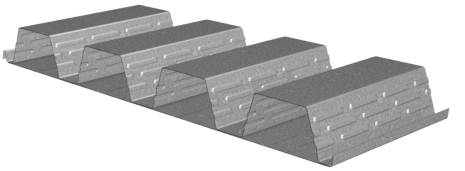
PLN3CD/HSN3CD/N3CD CELLULAR DECK
GRADE 50 STEEL

ASD

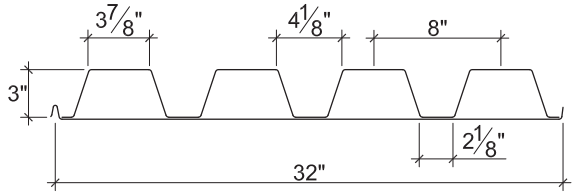
N3 CELLULAR ROOF DECK
- **PLN3CD-32 Deck used with PunchLok® II System**
- **HSN3CD-32 Deck used with TSWs or BPs**



N3 CELLULAR FORMLOK® COMPOSITE DECK
- **PLN3CD-32 FormLok Deck used with PunchLok® II System**
- **N3CD-32 FormLok Deck used with TSWs or BPs**

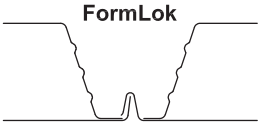


Nominal Dimensions



PLN3CD-32 or HSN3CD-32

Standard Interlocking Side-lap



PLN3CD-32 or N3CD-32 FormLok

Standard Interlocking Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)	Vertical Shear V_n/Ω End (lb/ft)	Interior (lb/ft)
20/20	3.9	0.0359/0.0359	50	1.579	1.353	0.505	0.709	3829	528	1186
20/18	4.4	0.0359/0.0478	50	1.716	1.550	0.503	0.801	3829	489	747
18/20	4.6	0.0478/0.0359	50	2.017	1.684	0.804	0.869	6823	579	1438
18/18	5.1	0.0478/0.0478	50	2.194	1.897	0.824	1.030	6823	803	1426
18/16	5.7	0.0478/0.0598	50	2.346	2.149	0.829	1.077	6823	756	1106
16/18	5.9	0.0598/0.0478	50	2.652	2.236	1.107	1.210	9108	862	1684
16/16	6.4	0.0598/0.0598	50	2.838	2.505	1.129	1.314	9108	1115	1734

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

	Bearing Length of Webs											
	One-Flange Loading						Two-Flange Loading					
Deck	End Bearing				Interior Bearing		End Bearing				Interior Bearing	
Gage	1½"	2"	3"	4"	4"	8"	1½"	2"	3"	4"	4"	8"
20/XX	794	870	997	1104	1737	2153	811	871	971	1055	2065	2596
18/XX	1359	1481	1687	1860	2940	3682	1520	1623	1797	1943	3573	4547
16/XX	2062	2240	2537	2788	4428	5495	2453	2609	2871	3092	5455	6883

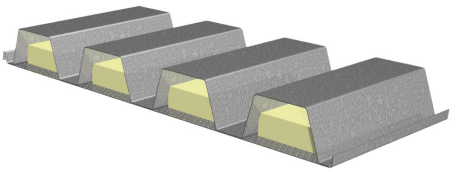
Standard Features
- ASTM A653 SS GR50 Min., with G60
- Standard lengths – 7'-6" to 30'-0"
- IAPMO UES ER-2018, UL, and FM Listed
- Tables conform to ANSI/SDI RD-2017 and C-2017

Optional Features
- Inquire regarding cost and lead times for:
  - -Sheet Lengths > 30'-0"
  - -Alternative metallic finishes
- Cellular Acoustical Versions

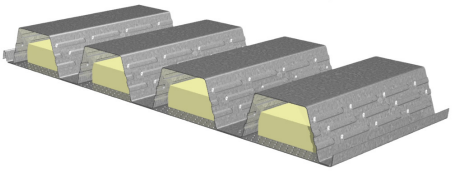
PLN3CD/HSN3CD/N3CD CELLULAR ACOUSTICAL DECK
GRADE 50 STEEL

LRFD

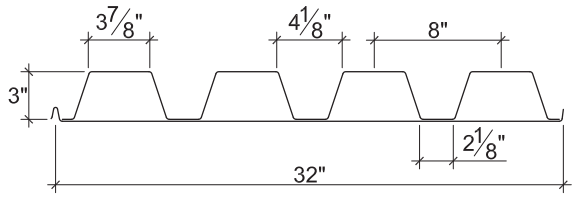
N3 CELLULAR ACOUSTICAL ROOF DECK
- PLN3CD-32 AC Deck used with PunchLok® II System
- HSN3CD-32 AC Deck used with TSWs or BPs



N3 CELLULAR ACOUSTICAL FORMLOK® COMPOSITE DECK
- PLN3CD-32 AC FormLok Deck used with PunchLok® II System
- N3CD-32 AC FormLok Deck used with TSWs or BPs



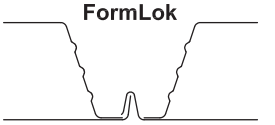
Nominal Dimensions



PLN3CD-32 AC or HSN3CD-32 AC

Standard Interlocking Side-lap

PLN3CD-32 AC or N3CD-32 AC FormLok



Standard Interlocking Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øVn (lb/ft)	Vertical Shear øVn End (lb/ft)	Vertical Shear øVn Interior (lb/ft)
20/20	3.9	0.0359/0.0359	50	1.530	1.335	0.507	0.709	5821	834	1811
20/18	4.4	0.0359/0.0478	50	1.664	1.532	0.505	0.801	5821	767	1141
18/20	4.6	0.0478/0.0359	50	1.955	1.662	0.796	0.869	10371	921	2196
18/18	5.1	0.0478/0.0478	50	2.127	1.873	0.817	1.030	10371	1268	2178
18/16	5.7	0.0478/0.0598	50	2.273	2.124	0.832	1.077	10371	1187	1689
16/18	5.9	0.0598/0.0478	50	2.569	2.208	1.096	1.210	13843	1367	2573
16/16	6.4	0.0598/0.0598	50	2.749	2.475	1.119	1.314	13843	1760	2649

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
20/XX	1215	1331	1525	1690	2584	3203	1241	1332	1485	1614	3072	3861
18/XX	2079	2266	2581	2846	4374	5476	2325	2484	2749	2973	5315	6763
16/XX	3155	3427	3882	4266	6586	8173	3752	3992	4393	4731	8115	10239

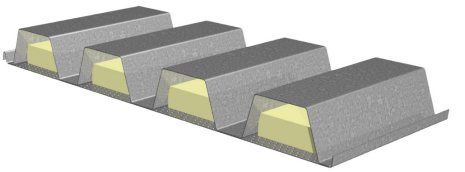
Standard Features
- ASTM A653 SS GR50 Min., with G60
- Standard lengths – 7'-6" to 30'-0"
- IAPMO UES ER-2018, UL, and FM Listed
- Tables conform to ANSI/SDI RD-2017 and C-2017

Optional Features
- Inquire regarding cost and lead times for:
  - -Sheet Lengths > 30'-0"
  - -Alternative metallic finishes
- Cellular Acoustical Versions

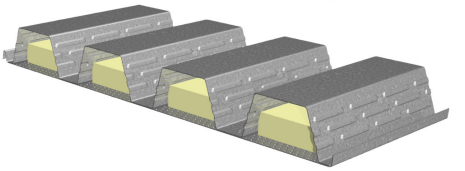
PLN3CD/HSN3CD/N3CD CELLULAR ACOUSTICAL DECK
GRADE 50 STEEL

ASD

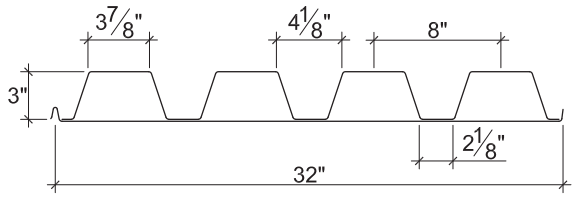
N3 CELLULAR ACOUSTICAL ROOF DECK
- PLN3CD-32 AC Deck used with PunchLok® II System
- HSN3CD-32 AC Deck used with TSWs or BPs

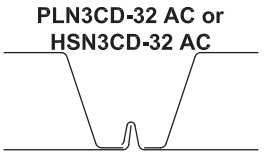


N3 CELLULAR ACOUSTICAL FORMLOK® COMPOSITE DECK
- PLN3CD-32 AC FormLok Deck used with PunchLok® II System
- N3CD-32 AC FormLok Deck used with TSWs or BPs

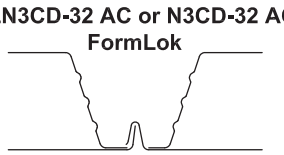


Nominal Dimensions





Standard Interlocking Side-lap



Standard Interlocking Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)	Vertical Shear V_n/Ω End (lb/ft)	Interior (lb/ft)
20/20	3.9	0.0359/0.0359	50	1.530	1.335	0.507	0.709	3829	546	1186
20/18	4.4	0.0359/0.0478	50	1.664	1.532	0.505	0.801	3829	502	747
18/20	4.6	0.0478/0.0359	50	1.955	1.662	0.796	0.869	6823	603	1438
18/18	5.1	0.0478/0.0478	50	2.127	1.873	0.817	1.030	6823	830	1426
18/16	5.7	0.0478/0.0598	50	2.273	2.124	0.832	1.077	6823	777	1106
16/18	5.9	0.0598/0.0478	50	2.569	2.208	1.096	1.210	9108	895	1684
16/16	6.4	0.0598/0.0598	50	2.749	2.475	1.119	1.314	9108	1152	1734

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
20/XX	794	870	997	1104	1737	2153	811	871	971	1055	2065	2596
18/XX	1359	1481	1687	1860	2940	3682	1520	1623	1797	1943	3573	4547
16/XX	2062	2240	2537	2788	4428	5495	2453	2609	2871	3092	5455	6883

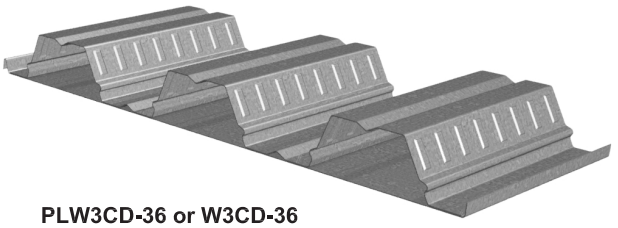
Standard Features
- ASTM A653 SS GR50 Min., with G60
- Standard lengths – 7'-6" to 30'-0"
- IAPMO UES ER-2018, UL, and FM Listed
- Tables conform to ANSI/SDI RD-2017 and C-2017

Optional Features
- Inquire regarding cost and lead times for:
  - -Sheet Lengths > 30'-0"
  - -Alternative metallic finishes

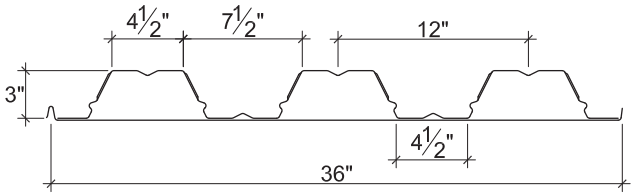
PLW3CD/W3CD CELLULAR DECK
GRADE 50 STEEL

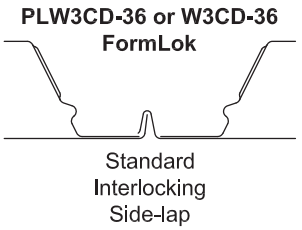
W3 CELLULAR FORMLOK® COMPOSITE DECK

- **PLW3CD-36 FormLok Deck used with PunchLok® II System**
- **W3CD-36 FormLok Deck used with TSWs or BPs**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øVn (lb/ft)	Vertical Shear øVn End (lb/ft)	Vertical Shear øVn Interior (lb/ft)
20/20	3.6	0.0359/0.0359	50	1.455	1.185	0.542	0.625	3587	872	1392
20/18	4.0	0.0359/0.0478	50	1.554	1.296	0.541	0.652	3587	806	942
18/20	4.1	0.0478/0.0359	50	1.813	1.492	0.852	0.813	6515	960	1789
18/18	4.6	0.0478/0.0478	50	1.949	1.618	0.862	0.846	6515	1327	1748
18/16	5.0	0.0478/0.0598	50	2.062	1.813	0.859	0.874	6515	1246	1460
16/18	5.2	0.0598/0.0478	50	2.316	1.931	1.105	1.037	9422	1427	2069
16/16	5.7	0.0598/0.0598	50	2.453	2.073	1.123	1.073	9422	1842	2148

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

	Bearing Length of Webs											
	One-Flange Loading						Two-Flange Loading					
	End Bearing				Interior Bearing		End Bearing				Interior Bearing	
Deck Gage	**1½"**	**2"**	**3"**	**4"**	**4"**	**8"**	**1½"**	**2"**	**3"**	**4"**	**4"**	**8"**
20/XX	754	827	947	1049	1622	2010	763	819	913	992	1914	2405
18/XX	1293	1410	1606	1771	2744	3436	1435	1532	1696	1834	3315	4218
16/XX	1966	2135	2419	2658	4134	5130	2321	2469	2718	2927	5066	6392

Standard Features

- ASTM A653 SS GR50 Min., with G60
- Standard lengths – 7'-6" to 30'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI RD-2017 and C-2017

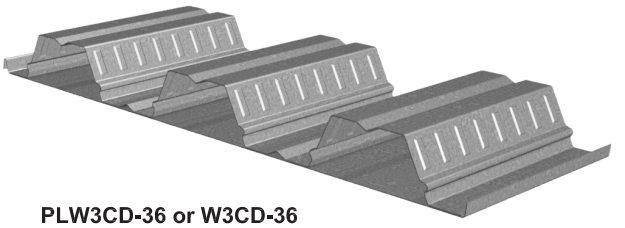
Optional Features

- Inquire regarding cost and lead times for:
  - -Sheet Lengths > 30'-0"
  - -Alternative metallic finishes
- Cellular Acoustical Versions

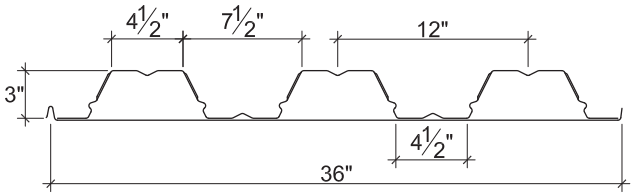
PLW3CD/W3CD CELLULAR DECK
GRADE 50 STEEL

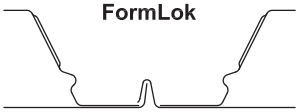
W3 CELLULAR FORMLOK® COMPOSITE DECK

- **PLW3CD-36 FormLok Deck used with PunchLok® II System**
- **W3CD-36 FormLok Deck used with TSWs or BPs**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)	Vertical Shear V_n/Ω End (lb/ft)	Vertical Shear V_n/Ω Interior (lb/ft)
20/20	3.6	0.0359/0.0359	50	1.455	1.185	0.542	0.625	2360	571	911
20/18	4.0	0.0359/0.0478	50	1.554	1.296	0.541	0.652	2360	528	617
18/20	4.1	0.0478/0.0359	50	1.813	1.492	0.852	0.813	4286	629	1171
18/18	4.6	0.0478/0.0478	50	1.949	1.618	0.862	0.846	4286	869	1144
18/16	5.0	0.0478/0.0598	50	2.062	1.813	0.859	0.874	4286	816	956
16/18	5.2	0.0598/0.0478	50	2.316	1.931	1.105	1.037	6199	934	1354
16/16	5.7	0.0598/0.0598	50	2.453	2.073	1.123	1.073	6199	1206	1406

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
20/XX	493	540	619	686	1090	1351	498	535	596	648	1286	1617
18/XX	845	922	1049	1157	1845	2310	938	1001	1108	1198	2228	2835
16/XX	1285	1395	1581	1737	2779	3449	1517	1614	1776	1913	3406	4297

Standard Features

- ASTM A653 SS GR50 Min., with G60
- Standard lengths – 7'-6" to 30'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI RD-2017 and C-2017

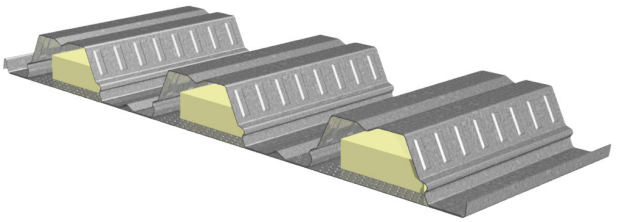
Optional Features

- Inquire regarding cost and lead times for:
  - -Sheet Lengths > 30'-0"
  - -Alternative metallic finishes
- Cellular Acoustical Versions

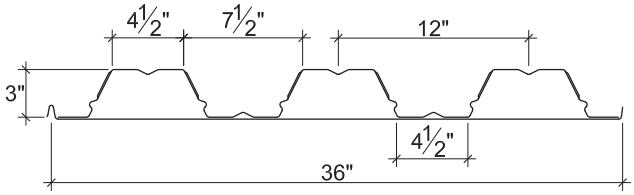
PLW3CD/W3CD CELLULAR ACOUSTICAL DECK
GRADE 50 STEEL

W3 CELLULAR ACOUSTICAL FORMLOK® COMPOSITE DECK

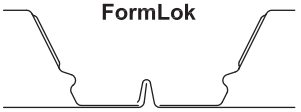
- **PLW3CD-36 AC FormLok Deck used with PunchLok® II System**
- **W3CD-36 AC FormLok Deck used with TSWs or BPs**



Nominal Dimensions



PLW3CD-36 AC or W3CD-36 AC FormLok



Standard Interlocking Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øVn (lb/ft)	Vertical Shear øVn End (lb/ft)	Vertical Shear øVn Interior (lb/ft)
20/20	3.6	0.0359/0.0359	50	1.425	1.124	0.542	0.608	3587	896	1871
20/18	4.0	0.0359/0.0478	50	1.528	1.226	0.542	0.640	3587	824	1058
18/20	4.1	0.0478/0.0359	50	1.776	1.425	0.847	0.794	6515	991	2559
18/18	4.6	0.0478/0.0478	50	1.909	1.539	0.863	0.830	6515	1363	2045
18/16	5.0	0.0478/0.0598	50	2.020	1.659	0.860	0.862	6515	1275	1463
16/18	5.2	0.0598/0.0478	50	2.267	1.845	1.099	1.018	9422	1472	2473
16/16	5.7	0.0598/0.0598	50	2.402	1.975	1.116	1.057	9422	1892	2332

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
20/XX	754	827	947	1049	1622	2010	763	819	913	992	1914	2405
18/XX	1293	1410	1606	1771	2744	3436	1435	1532	1696	1834	3315	4218
16/XX	1966	2135	2419	2658	4134	5130	2321	2469	2718	2927	5066	6392

Standard Features

- ASTM A653 SS GR50 Min., with G60
- Standard lengths – 7'-6" to 30'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI RD-2017 and C-2017

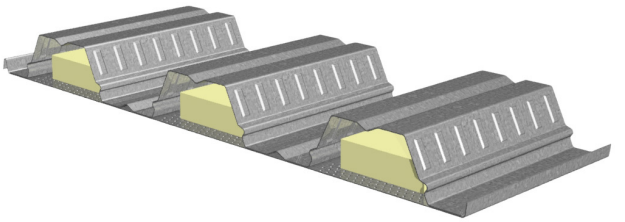
Optional Features

- Inquire regarding cost and lead times for:
  - -Sheet Lengths > 30'-0"
  - -Alternative metallic finishes

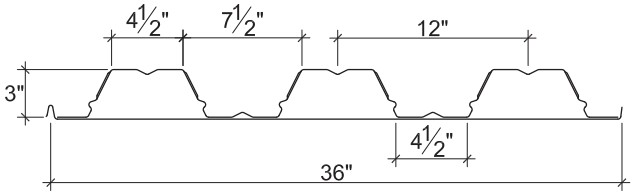
PLW3CD/W3CD CELLULAR ACOUSTICAL DECK
GRADE 50 STEEL

W3 CELLULAR ACOUSTICAL FORMLOK® COMPOSITE DECK

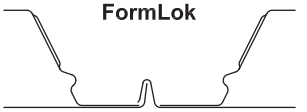
- **PLW3CD-36 AC FormLok Deck used with PunchLok® II System**
- **W3CD-36 AC FormLok Deck used with TSWs or BPs**



Nominal Dimensions



PLW3CD-36 AC or W3CD-36 AC FormLok



Standard Interlocking Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)	Vertical Shear V_n/Ω End (lb/ft)	Vertical Shear V_n/Ω Interior (lb/ft)
20/20	3.6	0.0359/0.0359	50	1.425	1.124	0.542	0.608	2360	587	1225
20/18	4.0	0.0359/0.0478	50	1.528	1.226	0.542	0.640	2360	539	693
18/20	4.1	0.0478/0.0359	50	1.776	1.425	0.847	0.794	4286	649	1675
18/18	4.6	0.0478/0.0478	50	1.909	1.539	0.863	0.830	4286	892	1339
18/16	5.0	0.0478/0.0598	50	2.020	1.659	0.860	0.862	4286	834	957
16/18	5.2	0.0598/0.0478	50	2.267	1.845	1.099	1.018	6199	963	1619
16/16	5.7	0.0598/0.0598	50	2.402	1.975	1.116	1.057	6199	1238	1526

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
20/XX	493	540	619	686	1090	1351	498	535	596	648	1286	1617
18/XX	845	922	1049	1157	1845	2310	938	1001	1108	1198	2228	2835
16/XX	1285	1395	1581	1737	2779	3449	1517	1614	1776	1913	3406	4297

Standard Features

- ASTM A653 SS GR50 Min., with G60
- Standard lengths – 7'-6" to 30'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI RD-2017 and C-2017

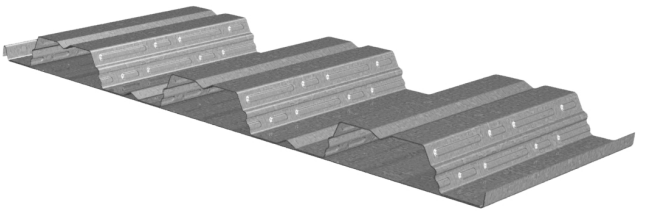
Optional Features

- Inquire regarding cost and lead times for:
  - -Sheet Lengths > 30'-0"
  - -Alternative metallic finishes

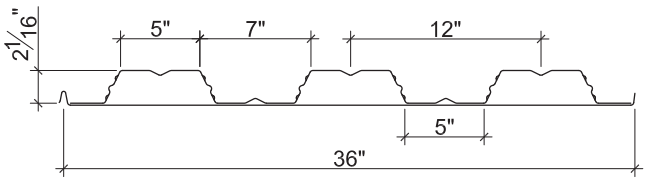
PLW2CD/W2CD CELLULAR DECK
GRADE 50 STEEL

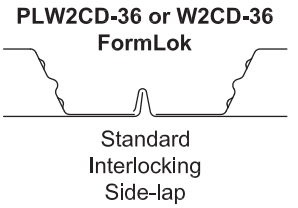
W2 CELLULAR FORMLOK® COMPOSITE DECK

- **PLW2CD-36 FormLok Deck used with PunchLok® II System**
- **W2CD-36 FormLok Deck used with TSWs or BPs**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øVn (lb/ft)	Vertical Shear øVn End (lb/ft)	Vertical Shear øVn Interior (lb/ft)
20/20	3.4	0.036/0.0359	50	0.667	0.561	0.363	0.429	3715	617	938
20/18	3.8	0.036/0.0478	50	0.713	0.615	0.372	0.446	3715	575	662
18/20	3.9	0.047/0.0359	50	0.847	0.695	0.526	0.549	4900	671	1153
18/18	4.3	0.047/0.0478	50	0.911	0.756	0.536	0.570	4900	910	1132
18/16	4.8	0.047/0.0598	50	0.964	0.850	0.544	0.586	4900	858	987
16/18	4.9	0.059/0.0478	50	1.087	0.905	0.704	0.702	6132	974	1323
16/16	5.4	0.059/0.0598	50	1.153	0.973	0.714	0.722	6132	1269	1450

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	6"
20/XX	805	882	1011	1120	1649	1887	857	920	1025	1114	2016	2328
18/XX	1319	1439	1639	1808	2689	3058	1515	1619	1793	1939	3342	3838
16/XX	2005	2177	2468	2712	4071	4604	2439	2595	2857	3078	5116	5844

Standard Features

- ASTM A653 SS GR50 Min., with G60
- Standard lengths – 7'-6" to 30'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI RD-2017 and C-2017

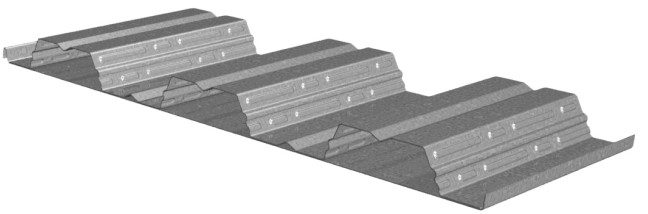
Optional Features

- Inquire regarding cost and lead times for:
  - -Sheet Lengths > 30'-0"
  - -Alternative metallic finishes
- Cellular Acoustical Versions

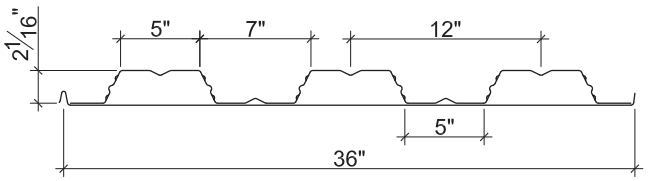
PLW2CD/W2CD CELLULAR DECK
GRADE 50 STEEL

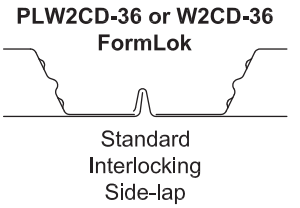
W2 CELLULAR FORMLOK® COMPOSITE DECK

- **PLW2CD-36 FormLok Deck used with PunchLok® II System**
- **W2CD-36 FormLok Deck used with TSWs or BPs**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)	Vertical Shear V_n/Ω End (lb/ft)	Vertical Shear V_n/Ω Interior (lb/ft)
20/20	3.4	0.036/0.0359	50	0.667	0.561	0.363	0.429	2444	404	614
20/18	3.8	0.036/0.0478	50	0.713	0.615	0.372	0.446	2444	377	434
18/20	3.9	0.047/0.0359	50	0.847	0.695	0.526	0.549	3224	439	755
18/18	4.3	0.047/0.0478	50	0.911	0.756	0.536	0.570	3224	596	741
18/16	4.8	0.047/0.0598	50	0.964	0.850	0.544	0.586	3224	562	646
16/18	4.9	0.059/0.0478	50	1.087	0.905	0.704	0.702	4034	638	866
16/16	5.4	0.059/0.0598	50	1.153	0.973	0.714	0.722	4034	831	949

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	6"
20/XX	526	577	661	732	1109	1268	560	601	670	728	1355	1565
18/XX	862	940	1071	1182	1808	2056	990	1058	1172	1267	2247	2580
16/XX	1310	1423	1613	1773	2737	3095	1594	1696	1867	2011	3439	3929

Standard Features

- ASTM A653 SS GR50 Min., with G60
- Standard lengths – 7'-6" to 30'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI RD-2017 and C-2017

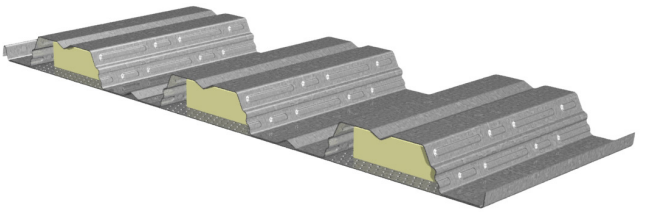
Optional Features

- Inquire regarding cost and lead times for:
  - -Sheet Lengths > 30'-0"
  - -Alternative metallic finishes
- Cellular Acoustical Versions

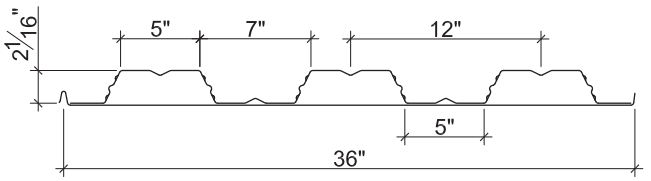
PLW2CD/W2CD CELLULAR ACOUSTICAL DECK
GRADE 50 STEEL

W2 CELLULAR ACOUSTICAL FORMLOK® COMPOSITE DECK

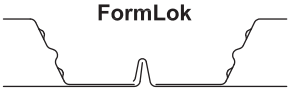
- **PLW2CD-36 AC FormLok Deck used with PunchLok® II System**
- **W2CD-36 AC FormLok Deck used with TSWs or BPs**



Nominal Dimensions



PLW2CD-36 AC or W2CD-36 AC FormLok



Standard Interlocking Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear øVn (lb/ft)	Vertical Shear øVn End (lb/ft)	Vertical Shear øVn Interior (lb/ft)
20/20	3.4	0.036/0.0359	50	0.653	0.531	0.363	0.420	3715	633	1186
20/18	3.8	0.036/0.0478	50	0.700	0.580	0.370	0.439	3715	588	718
18/20	3.9	0.047/0.0359	50	0.830	0.662	0.524	0.539	4900	692	1504
18/18	4.3	0.047/0.0478	50	0.892	0.717	0.534	0.561	4900	933	1290
18/16	4.8	0.047/0.0598	50	0.945	0.775	0.542	0.579	4900	877	983
16/18	4.9	0.059/0.0478	50	1.065	0.863	0.700	0.690	6132	1004	1570
16/16	5.4	0.059/0.0598	50	1.129	0.926	0.711	0.712	6132	1303	1567

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	6"
20/XX	805	882	1011	1120	1649	1887	857	920	1025	1114	2016	2328
18/XX	1319	1439	1639	1808	2689	3058	1515	1619	1793	1939	3342	3838
16/XX	2005	2177	2468	2712	4071	4604	2439	2595	2857	3078	5116	5844

Standard Features

- ASTM A653 SS GR50 Min., with G60
- Standard lengths – 7'-6" to 30'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI RD-2017 and C-2017

Optional Features

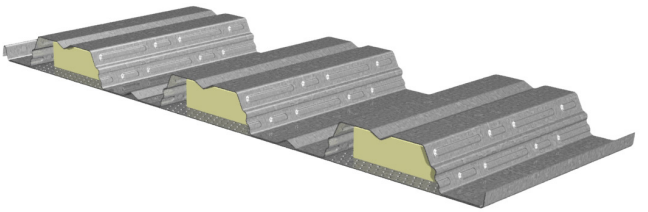
- Inquire regarding cost and lead times for:
  - -Sheet Lengths > 30'-0"
  - -Alternative metallic finishes

PLW2CD/W2CD CELLULAR ACOUSTICAL DECK
GRADE 50 STEEL

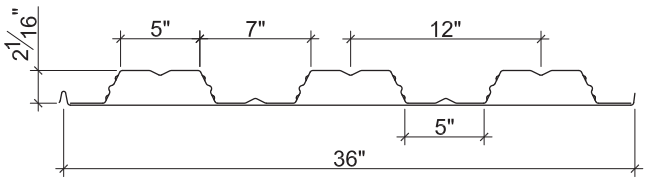
ASD

W2 CELLULAR ACOUSTICAL FORMLOK® COMPOSITE DECK

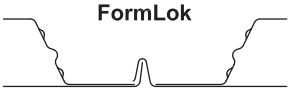
- **PLW2CD-36 AC FormLok Deck used with PunchLok® II System**
- **W2CD-36 AC FormLok Deck used with TSWs or BPs**



Nominal Dimensions



PLW2CD-36 AC or W2CD-36 AC FormLok



Standard Interlocking Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)	Vertical Shear V_n/Ω End (lb/ft)	Vertical Shear V_n/Ω Interior (lb/ft)
20/20	3.4	0.036/0.0359	50	0.653	0.531	0.363	0.420	2444	414	776
20/18	3.8	0.036/0.0478	50	0.700	0.580	0.370	0.439	2444	385	470
18/20	3.9	0.047/0.0359	50	0.830	0.662	0.524	0.539	3224	453	985
18/18	4.3	0.047/0.0478	50	0.892	0.717	0.534	0.561	3224	611	844
18/16	4.8	0.047/0.0598	50	0.945	0.775	0.542	0.579	3224	574	643
16/18	4.9	0.059/0.0478	50	1.065	0.863	0.700	0.690	4034	657	1028
16/16	5.4	0.059/0.0598	50	1.129	0.926	0.711	0.712	4034	853	1026

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	6"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	6"
20/XX	526	577	661	732	1109	1268	560	601	670	728	1355	1565
18/XX	862	940	1071	1182	1808	2056	990	1058	1172	1267	2247	2580
16/XX	1310	1423	1613	1773	2737	3095	1594	1696	1867	2011	3439	3929

Standard Features

- ASTM A653 SS GR50 Min., with G60
- Standard lengths – 7'-6" to 30'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI RD-2017 and C-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Sheet Lengths > 30'-0"
  - -Alternative metallic finishes