

ROFO FLODEK II (35)

PNC: RL983



PHIM Registration No. 07020229

欲しい屋根, 欲しい Rofo
Think Roof, Think Rofo.

Quality • Innovative • Service • System



CERTIFIED TO ISO 9001:2015
CERT. NO.: QMS 03329



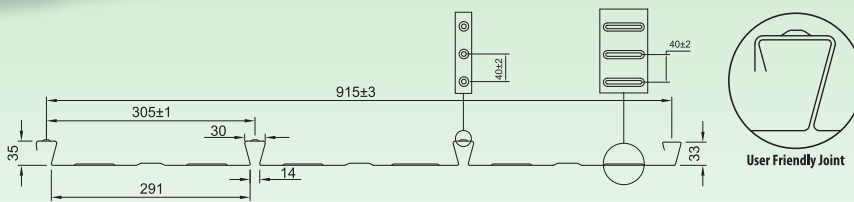
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Registration No. 0120101203-SB131898



Imprint "FLODEK 35" for further recognition



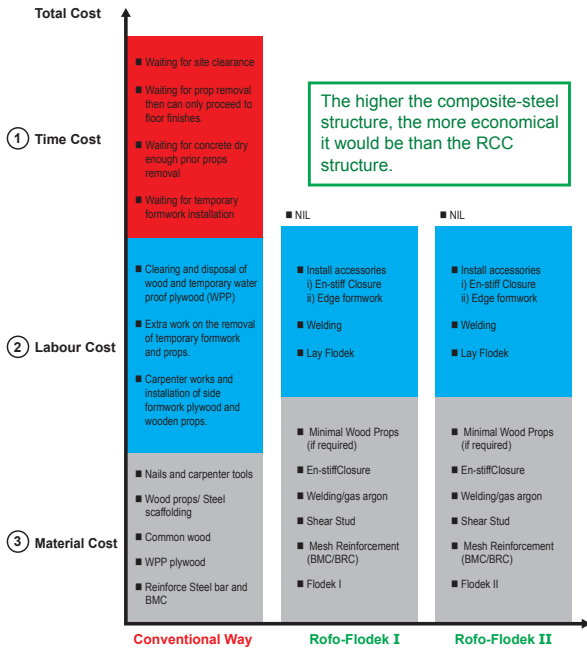
1. Advantages



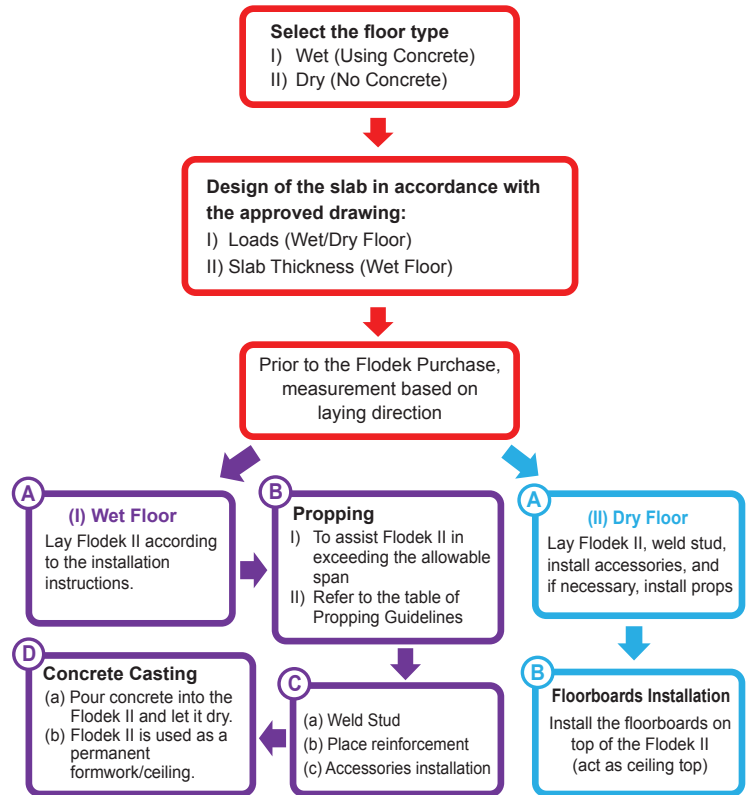
1. **Total Cost Saving**
2. **Faster Construction**
3. **Alkaline Environment Resistance** (Zn^{95%} / Al^{5%})
4. **No messy prop & save cost of props**
5. **Use as Dry floor & Ceiling**
6. **Wet Floor**
7. **Clean, no leakage and cement waste**
8. **Fast Concreting**
9. **Enhance Construction Safety**
10. **Acoustic Robust Solution**
11. **Min props up to 4m span (during construction)**
12. **Flodek 35**

2. Cost

Cost Comparison of Slab Constructions

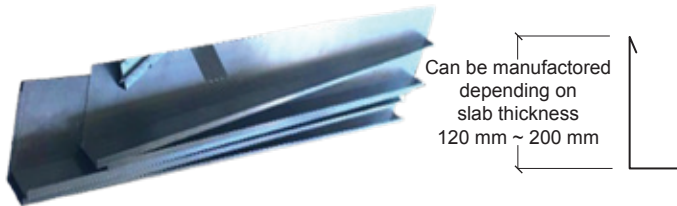


3. Application Flow



4. Accessories

A. End Cap Accessories

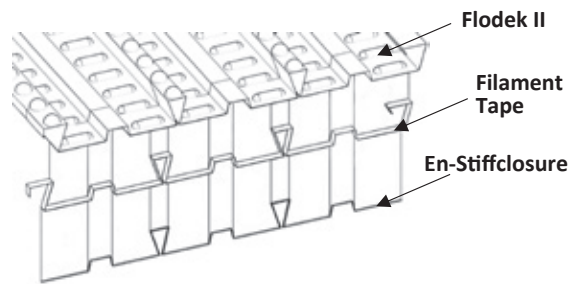


- Before casting concrete, cover the edge of Flodek II.
- Available thicknesses are 1.0 mm and 1.2 mm.

C. Shear Stud

- Give the composite slab additional longitudinal shear resistance
- Enhance the composite action of concrete and Flodek II

B. En-Stiffclosure & Filament Type



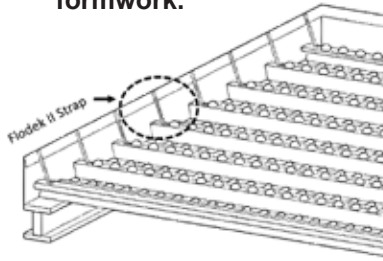
- En-Stiffclosure acts as a barrier to fill the space at the bottom of Flodek, strengthening its edge.
- Filament Tape secures and fits between Flodek and the en-stiffclosure.

Shear Stud Specification				
Type	1	2	3	
Material Grade	Minimum of 350 MPa			
Length (mm)	65	85	105	
Head Diameter, HD (mm)	32			
Head Thickness, HT (mm)	10			
Body Diameter, BD (mm)	19			
Standard	AWS D1.1/ D1.1M-2006 DIN EN ISO 13918 (Stud Welding Standard)			
Shear Stud	Spacing	95 mm c/c		
Specification	Installation Method	Electric Arc Stud Welding; Gas Shielding Arc Stud Welding		
Substitution	Type	2" (length) x 3" (height) x 2" (width) L Angle as a replacement of stud		

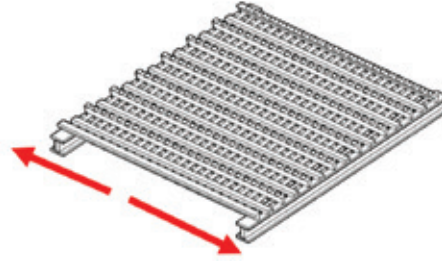
5. Installation Guidelines

Cost Comparison of Slab Constructions

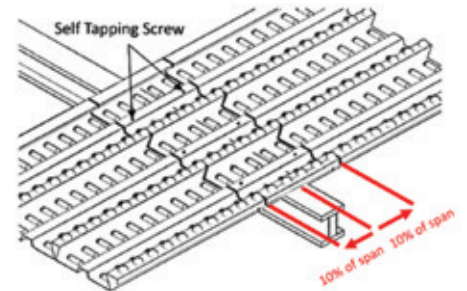
- ① Flodek Straps are utilized to secure the perimeter formwork.



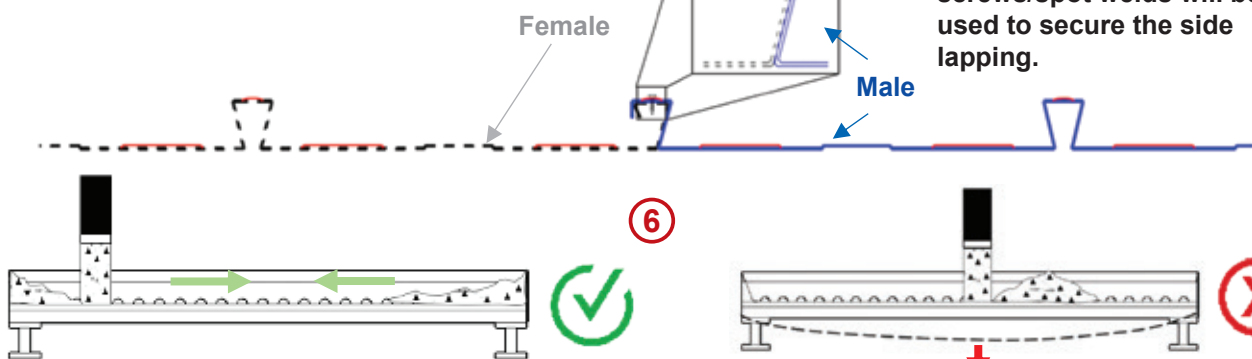
- ④ The Flodek ribs are parallel to the beam supports.



- ⑤ For overlapping Flodeks, use longitudinal lapping.



- ② Ribs, both **Male** and **Female**, to prevent leakage during casting.



- ③ Every 2" along the tapping, multiple 16mm self-tapping screws/spot welds will be used to secure the side lapping.

⑥

The pouring of concrete is done perpendicular to the beam supports.

6. Propping Guideline Table

Slab Thickness	Single Span Flodek II					
	Max Span Without Prop (m)			Max Span With 1 Prop (m)		
	0.75mm thick	1.0mm thick	1.2mm thick	0.75mm thick	1.0mm thick	1.2mm thick
90	1800	1900	2100	2200	2400	2500
100	1700	1900	2000	2100	2300	2400
110	1700	1800	1900	2000	2200	2400
120	1600	1800	1900	2000	2200	2300
125	1600	1700	1800	1900	2100	2300
150	1500	1600	1700	1800	2000	2100
170	1400	1600	1700	1700	1900	2000
175	1400	1600	1600	1700	1900	2000
190	1400	1500	1600	1700	1800	2000
200	1300	1500	1600	1600	1800	1900

Note:

- The propping guideline table is produced based on 26 kN/m³ unit weight which is the sum of 24 kN/m³ (normal concrete), 1 kN/m³ (wet concrete condition) and 1 kN/m³ (normal percentage reinforcement).
- Construction load of 1.5 kN/m² is included in the strength limit state checks according to EN 1991-1-1(2002).
- The bending strength of Flodek II is checked in accordance to AISI S-100 under the construction load.
- The span values of Flodek II required for propping are produced with condition of the deflection exceeds the criteria of $\frac{Span}{180}$.
- When applying props, builders are recommended to use soft materials as bearer to prevent surface damage/indentation on the bottom side of Flodek II.

7. Delivery & Transportation

The recommended delivery length is 8.2 - 32 ft., and even though cut-to-length is available upon request, subject to the handling method.



8. Section Properties

Properties \ Section	0.75 mm thickness	1.0 mm thickness	*1.2 mm thickness
Thickness TCT (mm)	0.75	1.0	1.2
Mass in (kg/m)	7.26	9.68	11.6
Sectional area (mm ²)	925.78	1,233.00	1,478.30
Moment of inertia, I _{xx} x 10 ⁶ (mm ⁴)	0.136156	0.180991	0.216674
Moment of inertia, I _{yy} x 10 ⁶ (mm ⁴)	72.76178	96.88455	116.1358
Radius of gyration, r _x (mm)	12.11	12.11	12.11
Radius of gyration, r _y (mm)	280.32	280.32	280.32
Centroid x (mm)	471.42	471.42	471.42
Centroid y (mm)	7.32	7.32	7.32
Section modulus, Z _x (mm ³)	6,483	8,642	10,369
Section modulus, Z _y (mm ³)	22,5356	30,0100	35,9760
Q _x (mm ³)	4,789	6,336	7,555
Q _y (mm ³)	154,346	205,465	246,243
Polar moment of inertia, J (mm ⁴)	173.6	411.0	709.6
Warping constant, I _w x 10 ⁸ (mm ⁶)	141.80	188.42	225.47

***Rofo-FloDek II with 1.2 mm thickness only available upon request**
Contact our Technical Engineers for enquiries

9. Application Reference

(1) New Rochelle, N.Y



(2) Huntsville, TX



(3) San Jose, CA



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