

CSI® CONSOLIDATED SYSTEMS, INC. Metal Dek Group®	STANDARD OPERATING PROCEDURES	DATE September 30, 2009	PROCEDURE SOP 1.27.MDG
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		APPROVAL <p style="text-align: right;">Allan Abbata</p>	
SUBJECT: Field Installation of Deep-Dek® Composite Floor Panel System			
Recommended Installation Guidelines			

1.0 SCOPE

Deep-Dek® Composite Floor Panel System is a constructed assembly by which a series of proprietary clinches are placed in the profile's **Dek-Knek®** side laps with a **Dek-Lok™ HSL Tool**. The **Deep-Dek® Composite Floor Panels** are fabricated with factory installed closed ends. This SOP describes recommended procedures for field installation of this product. The product is used as a metal form to contain and limit the boundaries of a composite concrete floor system. When used as part of a composite floor system described above, the **Deep-Dek® Composite Floor Panels** are used as the positive reinforcement and must be installed so that the side laps of adjacent units line up and therefore present a smooth panel/cell transition along the panel seams.

2.0 RESPONSIBILITIES

The Metal Dek Group® is responsible for manufacturing the **Deep-Dek® Composite Floor Panel** according to the required deck layout dimensions and installation directives set by the deck manufacturer's Engineering Group. The product will be delivered to the jobsite as a complete floor deck form assembly with closed ends. The Deck Erector will be responsible for installing the **Deep-Dek® Composite Floor Panels** and associated accessories as shown on the Deck Erection (Final Field Use) Drawings. (See Typical Erection Drawings below in Item No. 6 - Forms and Records). The concrete subcontractor will be responsible for installing the concrete fill system as specified in the Contract Documents. (See 7.0 Procedures for additional responsibilities.)

3.0 REFERENCES

1. SDI Manual of Construction with Steel Deck
2. Steel Deck Institute Design Manual - Latest Publication
3. Metal Dek Group® Erection (Final Field Use) Drawings

4.0 REQUIREMENTS

The Deck Erector must be experienced in installing this deck type and/or be thoroughly knowledgeable with the Steel Deck Institute Code of Recommended Standard Practice and Manual of Construction with Steel Deck. All parties involved, including but not limited to, Architect, Engineer of Record, General Contractor, Steel Fabricator, Steel Erector and any related subcontractors should receive and review this documented field installation procedures for the **Deep-Dek® Composite Floor Panel**. The ultimate review and execution of this procedure will be the responsibility of the General Contractor.

5.0 DEFINITIONS

Deep-Dek® Composite Floor Panel is a nominal 4-1/2" or 6" deep composite structural floor deck profile that provides a supporting surface for various types of construction and floor/ceiling systems as positive reinforcement for a concrete slab.

HSL Dek-Lok™ Tool is a clinching sidelap pneumatic device that shears and folds the **Dek-Knek™** hidden side lap feature to provide composite action with the concrete fill.

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6.0 FORMS AND RECORDS

Metal Dek Group® Deck Erection Drawings (Final Field Use Dek Drawings)
 HSL Dek-Lok™ Tool Agreement/Standard Operating Procedures/Operating Manual

7.0 PROCEDURES

(Manufacturer's Recommended Installation Guidelines)

The following procedures reflect the recommended installation guidelines set forth as standards developed by the deck manufacturer. The **Deep-Dek® Composite Floor Panel** is supplied as a proprietary custom product and shall not be installed without a total understanding of the composite concrete floor system, the supplied deck erection (Final Field Use) drawings and these recommended installation procedures.

1. Install the Deep-Dek® Composite Floor Panel in accordance with the Metal Dek Group® Erection Drawings with General Notes and SDI Manual of Construction with Steel Deck. The specific location and orientation of Deep-Dek® Composite Panel is depicted on the Metal Dek Group® Erection Drawings designated as "Final Field Use Dek Drawings".

2. Recommended Procedures for Proper Installation of Deep-Dek® Composite Floor Panels:

- Installation of the initial **Deep-Dek® Composite Floor Panel** is critical for maintaining proper bearing and straight alignment of the entire composite floor deck system. Refer to the Recommended Installation Procedures and General Notes - Deck Placement on the Final Field Use Dek Drawings.
- For proper installation, begin deck erection @ **"Start Point"** as noted on deck drawings.
- Maintain the proper cover width by stretching the deck to the cover width dimension.
- Attach each deck panel end to supporting members as shown on the Final Field Use Dek Drawings.
- Deck panel side lap connection is achieved by notching and folding the lap with a HSL Dek-Lok Tool.
- To allow for proper alignment and attachment of the panels, "C" clamp vise grips are recommended to provide a close, tight fit of the panel side laps prior to shearing and folding. See Fastening Detail on Final Field Use Dek Drawings.
- Repeat the above procedures until all deck panels are installed.

3. Subcontractors are to adhere to all OSHA standards for maintaining field construction practices. Deep-Dek® Composite Panels may contain sharp edges and proper field precautions should be taken and implemented.

4. Extreme care shall be used to protect the Deep-Dek® Composite Floor Panels from being damaged prior to, during and after deck installation.

5. Locations of openings in the Deep-Dek® Composite Floor Panels shall be the responsibility of the trades requiring them. These openings shall be field cut and reinforced as required by the Engineer of Record. Holes shall be cut prior to installation of the above deck materials. The penetrations shall be cut in such a manner as to present a neat appearance without burrs or sharp edges and in accordance with the SDI Manual of Construction for Steel Decks.

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6. Suspended ceilings, light fixtures, duct works and/or other utilities are permitted and can be suspended from the Deep-Dek[®] Composite Panel. The EOR is responsible for the design and location of all hanging loads from the deck. The Metal Dek Group[®] has developed hanger systems to suspend point loads up to 800 lbs./hanger. Hangers can be acquired by calling 803.251.5029. (Phone Number Project Services Group).

7. For any instances in which a situation arises that is not covered by this SOP, contact is to be established with the Metal Dek Group[®], Project Services Group, to provide guidance in resolving the issue(s) before proceeding.

This SOP is offered as the Metal Dek Group's recommendation for product installation. It is not intended as a guarantee or as a requirement. Successful installation can be achieved by following this procedure. The responsibility for appropriate quality installation procedures and safety practices ultimately lies with the General Contractor and the subcontractors involved. The Metal Dek Group[®] is available to answer questions or concerns associated with this SOP.