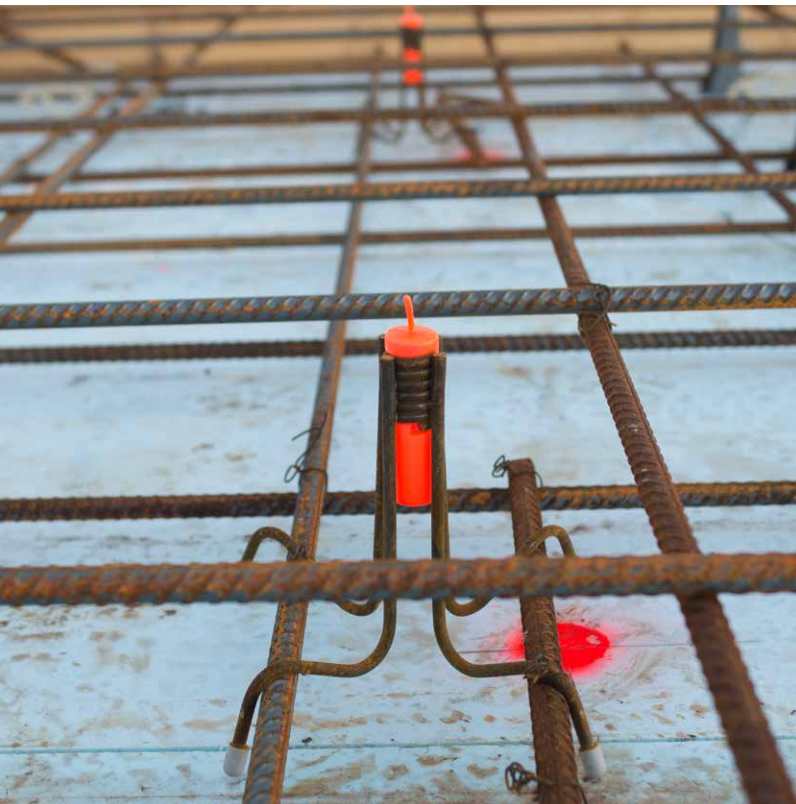




The Delta Tie is a two-dimensional truss of structurally non-conductive, non-corrosive, low thermal conductivity fiber composite used as a wythe connector for concrete sandwich panel construction. It installs quickly between insulation sheets.



The Dayton Superior T6A Brace Anchor is a 3/4" diameter coil insert designed to be easily positioned and tied into the rebar mat of a tilt-up panel.

Thermal Performance+ Ease of Use = a Winning Combo

SUMMARY

Dayton Superior provided a full line of tilt-up construction products to Tilt Wall Ontario Inc. From Delta Ties and DOW Insulation to boost thermal performance, to a variety of rebar support, inserts, braces and lifting accessories, Dayton Superior provided the tilt-up contractor with everything necessary to make the construction of a new Promotional Products Fulfillment & Distribution facility a success.

CUSTOMERS

General Contractor: Johnson Building
Tilt Up Panels: Tilt Wall Ontario Inc.

PROJECT

New distribution center for Promotional Products Fulfillment & Distribution Ltd. in Whitby Ontario, near Toronto.

CHALLENGE

Dayton Superior was tasked with Analyzing the tilt panels and engineering the lifting and bracing points to ensure a successful installation of the buildings walls. Dayton Superior was also able to meet the architects Sandwich Wall Insulation Specifications by using the Delta Tie Thermal system. 3" Thick DOW insulation boards along with the P24 Delta Ties, provided 40,000 square feet of edge to edge continuous insulation and practically no thermal bridging.

SOLUTION

Tilt Wall Ontario has been using Delta Ties for their Insulated sandwich panels for over 15 years with great success. During construction of these panels, they were pouring the exterior concrete wythe, installing the 3" thick sheets of insulation and inserting the P24 Delta Ties at a rate of almost 5,000 square feet per hour!

RESULTS

- Using Dayton Superior's bundled solutions provided the contractor a single point of contact for products and services.
- By partnering with Dayton Superior, the contractors kept labor costs down by selecting the products and services they needed to get the job done productively.

SUCCESS STORY



- The owners of the building will benefit from the energy performance of the Delta Tie Insulated Sandwich Panel Thermal System which boosts energy efficiency, reducing operating costs throughout the life of the building.

PRODUCTS AND SERVICES

- T41 Lift Inserts for fast, simple, safe release from the ground
- T6A Brace Inserts with Locator Plug for finding insert locations
- P24 Delta Ties installs rapidly and greatly reduces thermal bridging
- 3" Thick DOW insulation for thermal retention
- T13 Coil-Anchors for simple drill-in attachment of braces to slab
- B4, B8, B9 and B10 Tilt Braces for panel stability
- Tilt-Werks applications for enhancing productivity and efficiency



Dayton Superior T41 Ground Release System is a unique method of lifting concrete tilt-up wall panels into position and allows the hardware to be easily released from the ground. Ladders are normally not required during the hardware release process which greatly increases worker safety and productivity.



DELTA TIE AND DOW ADVANTAGES ON SYSTEM EVERY JOB:

Tested, Proven Performance

- Excellent loading behavior and load capacities with individual specimens and full-scale independent panel tests
- ASTM E-119 (4 Hour) approved
- NFPA 285 fire testing
- Superior truss design
- Tension capacity is over 3,100 lbs.
- Shear capacity (longitudinal) is over 3,200 lbs.
- Secondary shear capacity (out-of-plane) is 2,510 lbs (4"); 2,570 lbs (3"); 3,005 lbs (2") and 3,395 lbs (1")

Uncomplicated

- Unmatched spacing: 2ft x 4ft
- Spacing can be adjusted to increase composite action %
- Can be used with any thickness of insulation — up to 4" on the P24 and 4" to 8" on the P24XL
- Tie does not require marked insulation
- No drilling tie through insulation
- Installed in seconds

Design versatility

- Geometric configured, two-dimensional truss design significantly increases panel stiffness
- Can be oriented in panel either on end or on side
- The same tie used for non-composite or composite design

No Thermal Bridges

- Low conductivity connector
- Insulation is not interrupted by connector block-outs
- Allows edge to edge insulation placement on panel, side to side and top to bottom

Labor and Material Savings

- Up to 75% fewer ties required vs. other systems, shortening installation times
- Typical savings 20-30% over competitive products.

DOW Insulation

- Rigid insulation solutions from DOW Building Solutions such as ISOCAST-R™ and STYROFOAM™ Square Edge combine superior insulating capabilities and dew point control with the additional strength of concrete.

RESOURCES

To find out more about companies involved in this fast-paced project:

- Johnson Building, www.johnsonbuilding.net
- Tilt Wall Ontario Inc., tiltwall.ca
- Dayton Superior, www.daytonsuperior.com



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