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MIAMI-DADE COUNTY APPROVED



LA DBS DEPARTMENT OF BUILDING AND SAFETY



# CONSTRUCTION MATERIALS

TECHNOLOGIES

## LABORATORY TEST REPORT

**Report for:** Dymotek  
7 Main St., P.O. Box 440  
Ellington, CT 06029

**Attention:** Tom Trueb

<b>Product Name:</b>	Roof Top Blox™	<b>Manufacturer:</b>	Dymotek
<b>Project No.:</b>	DYMO-003-02-01	<b>Source:</b>	Dymotek
<b>Date Received:</b>	January 23, 2013	<b>Dates Tested:</b>	March 13-23, 2013

**Purpose:** Determine the load bearing resistance of Dymotek's Roof Top Blox™ by application of uniaxial dead loads, *D*, for a continuous eight (8) hour period under constant radiant heat exposure (black panel temperature 200°F).

**Test Methods:** Testing was conducted under client's direction. Briefly, samples were equilibrated to temperature one hour prior to load application. Uniaxial dead loads were applied to RTB-01: Roof Top Blox™ for a continuous eight (8) hour period under constant radiant heat exposure (black panel temperature 200°F) using a universal testing machine. As specified by the client, an average creep rate  $\leq 0.005$  in./hr over the final hour of testing was deemed an acceptable result.

The following uniaxial dead load configurations were tested (See Appendix A for detailed drawings):

1. 250 lbf point load centered on the RTB-01 load bearing surface
2. 350 lbf distributed load applied to the RTB-01 load bearing surface
3. 350 lbf point load centered on an elevated STR-04. STR-04 threaded a maximum 2 inches into the RTB-01.

**Sample Description:** Product samples were supplied by Dymotek and received January 23, 2013. RTB-01: Roof Top Blox™ is an injection molded polypropylene component with a galvanized steel plate insert (min. 0.012 in. bare metal thickness;  $F_y = 50$  ksi) and an adhered extruded polystyrene foam base (min 1.60 pcf). STR-04 is a 10" galvanized slotted steel strut channel. See Appendix B for the manufacturer's product specifications.

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**Results:**

Table 1: Load Bearing Resistance of Roof Top Blox™

Property	Test Method	Results (Pass/Fail)	Requirement
Load Bearing Resistance; 8 hr uniaxial dead load; 200°F black panel temperature	Client Specified		
250 lbf point load centered on the RTB-01 load bearing surface		Pass	<sup>1</sup> Average creep rate over the final hour of testing ≤ 0.005 in./hr
350 lbf distributed load applied to the RTB-01 load bearing surface		Pass	
350 lbf point load centered on an elevated STR-04		Pass	

<sup>1</sup>Requirement specified by client

**Statement of Attestation:**

The results of the aforementioned testing were determined in accordance with methods described herein. The laboratory test results presented in this report are representative of the material supplied.

**Signed:** \_\_\_\_\_

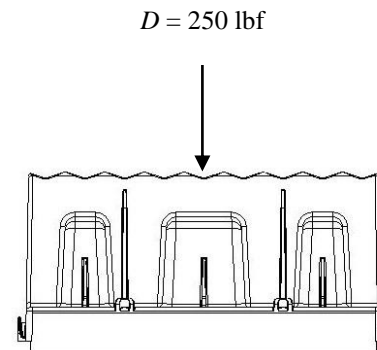
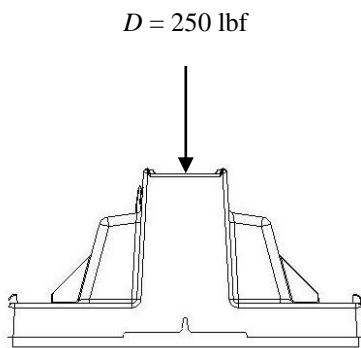
Zach Priest, P.E.  
 Director

**Report Issue History:**

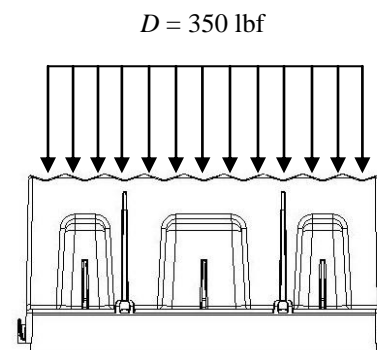
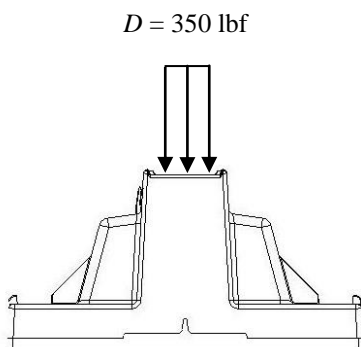
Issue #	Date	Pages	Revision Description (if applicable)
Original	03/27/2013	5	NA
Rev 1	4/24/2013	5	Updated product literature

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### Roof Top Blox™: 250 lbf Point Load

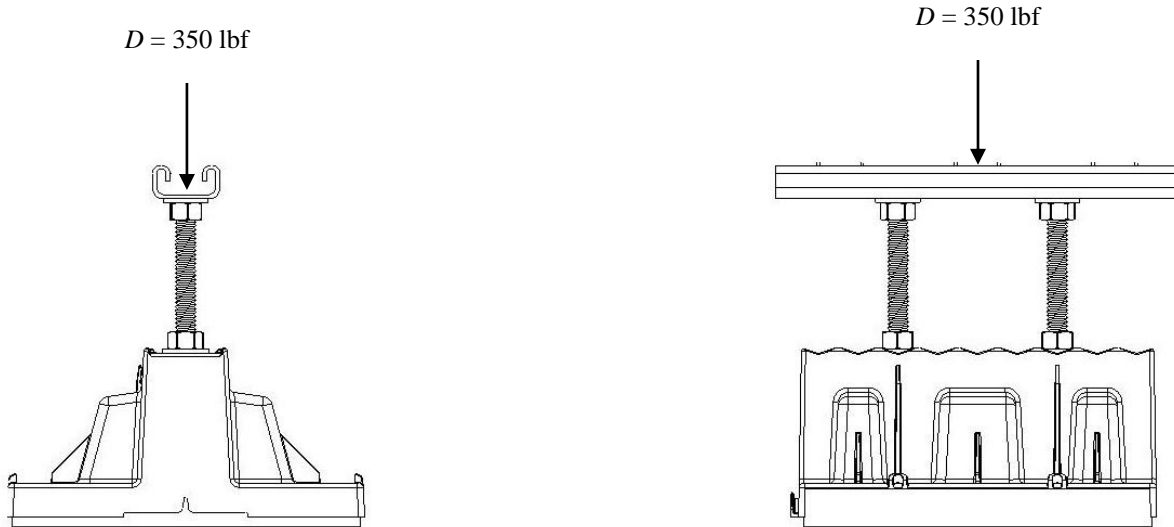


### Roof Top Blox™: 350 lbf Distributed Load

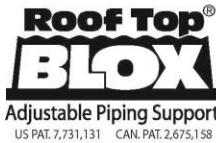


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### Roof Top Blox™: 350 lbf Load Applied to Elevated STR-04



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## ROOF TOP BLOX SPECIFICATIONS



MADE IN USA

### Roof Top Blox Product Specifications

<b>Body Material</b>	Black UV stabilized Polypropylene Copolymer .100" to .135" wall thickness
<b>Base Material</b>	1" thick by 25psi, type 4 closed cell structural foam
<b>Dimensions Weight</b>	8.850" square by 4-1/2" high, top accessory adds 1-1/2" to height for 6" height requirements, Blox interlock end to end for wide multi-piping platforms. Weight: 1lb per Blox
<b>Load Bearing</b>	Max load per Blox—Single Point Load: 250lb/113 kg—Dual Point or Strut-Mounted Load: 350lb/158 kg. Up to 350lbs—apply STR-04 slotted steel strut channel under heavy loads over 250lbs.
<b>Spacing</b>	Space Blox approximately every 7 feet along all piping.
<b>Pipe Fastening</b>	Screw indents guide fastening screws into special internal engineered thread gripping feature. #10 sheet metal screws recommended. Blox supplied with 3/4" galvanized universal quick clamping strap for up to 2" pipe. Top surface easily adapts to all types of piping clamps, clips, slotted strut and 3/8" or 1/2" threaded rod. All pipe fastening and adjustments done from top side only.
<b>Accessories</b>	1-1/2" Polypropylene top height extender, 10" slotted steel strut, 12" threaded rod, pipe rollers, securing brackets, M-1 adhesive, and primer for M-1 adhesive.
<b>Warranty</b>	5 years Roof Top Blox replacement against manufacturer's defect.
<b>Applications</b>	Blox engineered to install on flat roof surfaces for supporting gas, condensate or refrigeration lines, electrical conduits, ductwork or roof top walkways and mechanical equipment. Rated for temperatures up to 200°F/93°C.

### Suggested Engineering Specification

Roof top support blocks for gas piping, plumbing, HVAC, conduit, cable tray, and mechanical equipment shall be Roof Top Blox (RTB-01). The support blocks must be designed to eliminate roof penetrations, flashings or damage to roofing membrane. Support body shall be made of recycled UV-resistant Polypropylene Copolymer. Base platform material shall be 1" thick, 25psi, type 4 closed cell structural foam to distribute and evenly cushion loads. Support top surface shall have molded in pipe organizing saddles and strut mounting cradle. The top surface shall also have screw guide indents and engineered internal screw thread gripping feature. Block must accept 3/8" and 1/2" threaded rod (ROD-03) using side entry nut slots to allow fast top side assembly and piping height adjustments. Aluminum rollers (ROL-05 or ROL-06) shall be installed on long piping runs. Securing brackets (SBC-07) and adhesive (ADH-12) recommended for permanently securing Blox into its final installed position, anchoring against wind, rain and snow loads.

### Products Available

**RTB-01: Roof Top Blox**

(Includes clamping strap) bundled in 8-pack totes



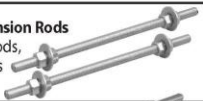
**XTB-02: 1.5" Blox Height Extension**

Fastens directly on top of Blox with #10 screws provided or elevated with extension rods



**ROD-03: 12" Extension Rods**

(2) 1/2" threaded rods, (8) nuts, (4) washers zinc plated



**STR-04: 10" Galvanized Slotted Steel Strut Channel**



**ROL-05: Small Pipe Roller**

(aluminum) Supports 1" to 3" pipe



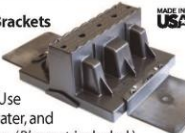
**ROL-06: Large Pipe Roller**

(aluminum) Supports 4" to 6" pipe (includes strut & mounting screws)



**SCB-07: Securing Brackets**

(polycarbonate) (2) brackets secure Blox directly to roof with M-1 Adhesive. Use brackets for wind, water, and snow load conditions. (Blox not included.)



**ADH-12: M-1 Structural Adhesive**

(gray) High bond adhesive for all roof membrane systems. Apply directly under Blox or SCB-07 brackets — 10 oz. tube bonds 10 pair SCB-07 or 20 RTB-01.

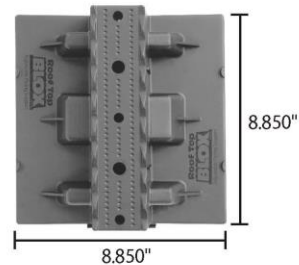


**ADH-13: Primer for M-1 Adhesive**

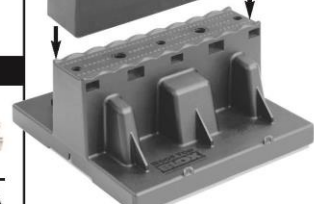
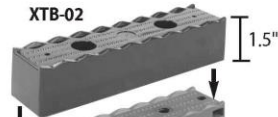
Primer required for bonding to TPO roof systems — 1 pint can is enough to bond 35 pairs of SCB-07 brackets



**RTB-01: Roof Top Blox Unit**



**XTB-02**



7 Main St., P.O. Box 440  
 Ellington, CT 06029  
 Phone: 860-979-0345  
 Fax: 860-872-0300

www.rooftopblox.com

04/13

## END OF REPORT

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