VINYL (PVC) WINDOW AND DOOR BLOCK-OUTS
FOR STAY-IN-PLACE FORMS - INSULATING CONCRETE FORMS

VBUCK®

U.S. PAT. 5,996,293 & 6,070,375
Canadian PAT. 2,255,256

PART 1 GENERAL

1.01 SUMMARY

A. Supply and install VBUCK Brand Block-Out System in stay-in-place insulating concrete forms (ICF) for window and door openings.

B. Block-out systems include the construction of the following:
1. Exterior and interior openings for windows.
2. Exterior and interior openings for doors.
3. Shaped window and door openings: round, half round, eyebrow, ellipse, hexagon, octagon, and trapezoid.
4. Large door openings: patio and French doors, garage doors, commercial entries.

C. Includes VBUCK Brand Bracing System for bracing block-out while concrete is poured until set.

1.02 SCOPE OF WORK

A. Provide labor, materials, tools, and equipment for the installation of VBUCK Brand products manufactured by V. T. Inc. 1170 West 200 North, Logan, UT 84321, Phone: (435) 752-8453 Fax: (435) 750-6948. E-mail: Info@vbuck.com Website: www.vbuck.com.

B. Provide labor to cut, assemble, and install the block-out system in an insulating concrete form.

1.03 PRODUCTS INSTALLED, BUT NOT SUPPLIED

A. Insulating Concrete Forms (ICF)

B. Concrete

C. Steel Reinforcement for ICF Walls

1.04 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions.

B. Code Compliance Data: Submit relevant code compliance data.

C. Drawing and Calculations: Submit project drawings, details of construction, and structural calculations by the local building department.

1.05 QUALITY ASSURANCE

A. Comply with applicable governing codes and regulations.

B. Follow manufacturer's training and installation procedures.

C. Contractor is responsible for proper construction and placement of insulating concrete forms, steel reinforcement, and concrete for walls and for proper construction of block-out system and appropriate block-out bracing (pour to cure).

D. Installation to comply with the project drawings and calculations.

1.06 SYSTEM DESCRIPTION

A. The VBUCK Brand vinyl block-out system consists of 16-foot lineal pieces of extruded 100% regrind Poly Vinyl Chloride (PVC). Dimension of system is dependent on manufacturer and width of ICF in which the block-out system will be used. Corner connectors (right angle and variable) may be used to assemble the block-out.

B. There are multiple widths of the VBUCK Brand vinyl block-out system available: 8, 9, $9^{1/4}$, $9^{1/2}$, $9^{5/8}$, $9^{7/8}$, 10, 11, $11^{1/4}$, $11^{1/2}$, $11^{11/16}$, 12, $12^{1/2}$, 13, $13^{1/4}$, $13^{1/2}$ inch widths. For ICF manufacturers who require greater widths for windows and doors, they can be fabricated upon request. VBUCK can be shaped to form round, half round, ellipse, gothic, and eyebrow openings.

C. Length: 16'1" Height: outside 3" inside 1 ½" Wall Thickness: 1/8" +/- Outside and Center Cells: 1 1/4" +/-.

1.07 RELATED SECTIONS

A. Section 08050 – Basic Door and Window Materials & Methods

B. Section 08200 – Wood and Plastic Doors

C. Section 08400 – Entrances & Storefronts

D. Section 08500 – Windows

1.08 REFERENCES

A. ASTM – D635-98 Rate of Burning and/or Extent and Time of Burning of Plastics.

B. ASTM – D696 Coefficient of Linear Thermal Expansion of Plastics between –30 C and 30 C with a Vitreous Silica Dilatometer.

C. ASTM – D1929-96 Flash Ignition, Spontaneous Ignition.

D. ASTM – E84 Flame Spread.

E. ASTM D 2843-99 Density of Smoke.

1.09 SUBMITTALS

A. CMT Engineering Laboratories.
   1. Wind: 225 psf of static load with minimal structure degradation. 130 mph (3 second gust), Exposure D, 30 feet mean.

   2. Pullout: 250 lb., 400 lb. With cellular PVC insert.

B. Architectural Testing Inc. (ATI)
   1. Cyclic Wind Pressure loading: TAS 203-94 Pass

   2. Impact Test: TAS 201-94 Pass

   3. Uniform Static Air Pressure: TAS 202-94 194 mph

1.10 DELIVERY, STORAGE AND HANDLING

A. Deliver VBUCK lineal pieces to project site in undamaged condition; handle lineal pieces to prevent damage to components.

B. Deliver corner connectors, center connectors, and variable connectors to project site in undamaged condition: store and handle connectors to prevent damage.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Acceptable Manufacturer: V. T. Inc. 1170 West 200 North, Logan, UT 84321, Phone: (435) 752-8453 Fax: (435) 750-6948. E-mail: info@vbuck.com Website: www.vbuck.com.

B. Substitutions: Not permitted.

2.02 MATERIALS

A. VBUCK, appropriate width for ICF that is being used (VBUCK is typically shipped to the job site in 16-foot lineal pieces).

   1. VBUCK 16 foot lineal pieces in desired width according to ICF width (8, 9, 9 $^{1/4}$, 9 $^{1/2}$, 9 $^{5/8}$, 9 $^{7/8}$, 10, 11, 11$^{1/4}$, 11$^{1/2}$, 11$^{11/16}$, 12, 12$^{1/2}$, 13, 13$^{1/4}$, 13 $^{1/2}$ inch).
   2. Required quantity of 8001 Corner Connectors.
   3. Required quantity of 8002 Center Connectors.
   4. Required quantity of 8003 Variable Connectors (used for variable angle connections).
   5. Required quantity of cellular PVC, or equivalent, (Pressure-treated lumber) machined to desired profile not to be less than 2 inches in overall width and not more than 1 ½ inches in height. NOTE: If required height exceeds 1 ½ inches, longer screws are required.

6. Required quantity of #8 X 2” flathead screws, coated with Magni 550 or 555.
7. Sufficient bracing to assure proper installation based on manufacturer’s recommendations.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verification of Conditions: Openings are in correct location, and of correct size, in accordance with approved drawings and manufacturer's installation instructions.

3.02 INSTALLATION

A. ASSEMBLY AND INSTALLATION INSTRUCTIONS:

1. Cut VBUCK rough opening dimensions.
2. If needed or required, cut cellular PVC to desired length.
3. Place cellular PVC in predetermined location. NOTE: Typically oriented near the center of the VBUCK for windows. Place in all three small cells on both sides of door frames. (When installing curtain walls, insert cellular PVC into attachment cell when assembling VBUCK to facilitate concrete fastener application.)
4. Insert appropriate connectors in connection cavities. NOTE: Requires 2 for each corner (8 per window) and 1 center connector per corner (4 per window).
5. Brace using recommended bracing system (VBRACE), following manufacturer’s bracing instructions.
6. Using manufacturer’s directions, clean vinyl then apply a long duration silicone caulk to all field joints to preclude water or air infiltration.
7. Install window or door block-out in rough opening.
8. Complete bracing with VBUCK brand Yoke & Tie or wood cross braces every 18” for lateral forces. For vertical forces insert VBUCK brand Power Brace or wood braces every 18”.
9. Place concrete. NOTE: For best results, pour sill first.
10. Remove bracing after concrete is set.

B. WINDOW AND DOOR INSTALLATION

1. Install windows and doors per window and door manufacturer’s instructions.
2. Use self drilling K-lath 1 $^{7/8}$” pan head screws for best results.

END OF SECTION