

CITY OF LOS ANGELES  
CALIFORNIA

BOARD OF  
BUILDING AND SAFETY  
COMMISSIONERS

VAN AMBATIELOS  
PRESIDENT

E. FELICIA BRANNON  
VICE PRESIDENT

JOSELYN GEAGA-ROSENTHAL  
GEORGE HOVAGUIMIAN  
JAVIER NUNEZ



ERIC GARCETTI  
MAYOR

DEPARTMENT OF  
BUILDING AND SAFETY  
201 NORTH FIGUEROA STREET  
LOS ANGELES, CA 90012

FRANK M. BUSH  
GENERAL MANAGER  
SUPERINTENDENT OF BUILDING

OSAMA YOUNAN, P.E.  
EXECUTIVE OFFICER

ITW Buildex  
700 High Grove Blvd.  
Glendale Heights, IL 60139

www.itwbuildex.com

Attn: Michael Gong  
(800) 848-5611

RESEARCH REPORT: RR 25915  
(CSI #050523)

Expires: October 01, 2020  
Issued Date: October 01, 2018  
Code: 2017 LABC

**GENERAL APPROVAL** – Renewal and Clerical Modification - ITW Buildex Teks Select™  
Self-drilling Structural Fasteners for Cold Formed Steel and Aluminum Connections.

## DETAILS

ITW Buildex Teks Select™ Structural Fasteners are proprietary self-drilling tapping steel screws, which have a dual heat treatment and are coated with corrosion preventive coating identified as Climaseal ACR™. The drill point and the lead threads of screws are heat treated to a high hardness for drilling and thread forming. The balance of the fastener shank is the load-bearing area of the fastener and is treated to a lower hardness complying with Grade 5 of SAE J 429 and ASTM A449. Table 1 provides screw designations, sizes, descriptions of point styles, drilling capacity, and load bearing area. The No.10, No.12, and ¼ inch diameter fasteners have hex washer heads (HWH), and are available in various lengths. No. 12 fastener is also available in one inch with Undercut Phillips Flat Head (UPFH).

Installation of ITW Buildex Teks Select™ screws must be in accordance with the manufacturer's published installation instructions and this report. The screws must be installed perpendicular to the work surface using a screw driving tool. The installation speed for ¼ inch screws should not exceed 1,800 rpm; the installation speed for all other screws should not exceed 2,500 rpm. The screw must penetrate through the supporting metal with a minimum of three threads protruding past the back side of the supporting metal. To insure proper performance, only the load-bearing area being given in Table 1 can be engaged in the material being fastened.

RR 25915  
Page 1 of 3

ITW BUILDEX

RE: ITW Buildex Teks Select™ Self-drilling Structural Fasteners for Cold Formed Steel and Aluminum Connections

**The approval is subject to the following conditions:**

1. For connections subject to tension, the least of the allowable pullout, pullover, and fastener tension strength found in Table 2, 3 and 4, respectively, must be used for design. For connections subject to shear, the lesser of the fastener shear strength and allowable shear (bearing) found in Table 4 and 5, respectively, must be used for design.
2. The minimum spacing and edge distance for fasteners shall comply with Table 6 shown on the attached sheet. For steel connections, the minimum spacing distance is three times the diameter of the screw, and the minimum edge distance is 1.5 times the diameter of the screws. For aluminum connections, the minimum spacing distance is four times the nominal diameter of the screw, and the minimum edge distance is two times the nominal diameter of the screws.
3. Calculations demonstrating the applied loads are less than the allowable loads prepared by a California licensed civil or structural engineer or architect must be submitted to the structural plan check section.
4. The allowable loads shall not be increased for wind or seismic forces.
5. Calculations shall be in accordance with the Cold Formed Steel Design Manual, AISI S100-2007/S2-10. Calculations shall consider all loading conditions acting on the connected assembly. Connections with combined shear and tension shall be checked using the equations given by AISI S100, Section E4.5.
6. Steel members shall have a minimum ultimate tensile strength of 58 ksi. Aluminum 6063-T52 and 6063-T6 shall have a minimum ultimate tensile strength of 22 ksi and 30 ksi respectively.
7. The nominal strength values contained in this report are not approved for the design of structural diaphragms used to resist wind , seismic and other in-plane lateral loads
8. The screws are identified with “BX” logo on top of the fastener head. Each box of fasteners has a label bearing the company name (ITW Buildex), fastener type, part number, lot number, and fastener description as shown in Figure 1.

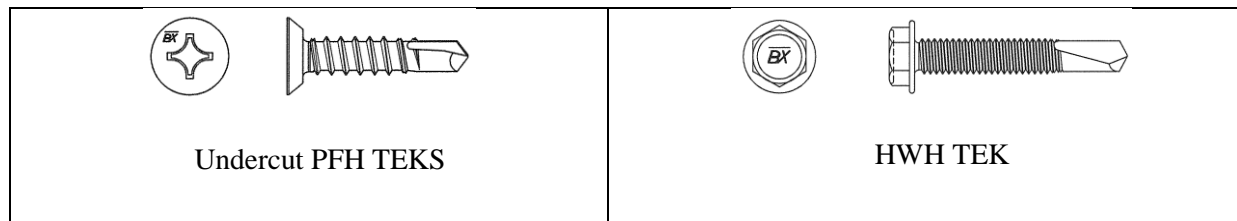


Figure 1 - ITW Buildex Teks Select™ Self-drilling Structural Fasteners.

ITW BUILDDEX

RE: ITW Buildex Teks Select™ Self-drilling Structural Fasteners for Cold Formed Steel and Aluminum Connections

## **DICUSSION**

The report is in compliance with the 2017 Los Angeles City Building Code.

The clerical modification is to update the report to the 2017 Los Angeles City Building Code.

The approval was based on the tests in accordance with ICC-ES Acceptance Criteria for Tapping Screw fasteners (AC118), dated January 2018.

Addressee to whom this Research Report is issued is responsible for providing copies of it, complete with any attachments indicated, to architects, engineers and builders using items approved herein in design or construction which must be approved by Department of Building and Safety Engineers and Inspectors.

This general approval of an equivalent alternate to the Code is only valid where an engineer and/or inspector of this Department has determined that all conditions of this approval have been met in the project in which it is to be used.

---

QUAN NGHIEM, Chief  
Engineering Research Section  
201 N. Figueroa St., Room 880  
Los Angeles, CA 90012  
Phone- 213-202-9812  
Fax- 213-202-9943

BKR  
RR25915  
TLB1800250  
R09/26/2018  
2210, 2211, 2002

Attachment: 3 pages. Table of Screw Description; Tables of Allowable Pullout, Pullover and Shear Service Loads; Table of Fastener Tensile and Shear Strength; and Minimum Spacing and Edge Distance.