BAILEY BENT TAB STUD

THE NEXT GENERATION OF STEEL FRAMING

The BAILEY BENT TAB STUD Bridging Channel System helps reduce material and labour costs.









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For curtain wall applications, lateral bridging must be provided at 5'-0" o.c. or less in order to keep the studs aligned and to provide structural integrity during the construction phase. The **BAILEY BENT TAB STUD** Bridging Channel System is a new innovative and patented steel stud that eliminates the need for traditional bridging clips and reduces on-site material and labour costs. The patented design incorporates a bendable tab into the knockout of the stud. The bendable tab is bent perpendicular to the stud allowing the cold rolled channel to pass through the knockout opening. In this system, the bent tab gets attached to the bridging channel utilizing a single screw only.

APPLICATIONS

- Exterior curtain wall applications that are subjected to wind load only
- · Interior non-loadbearing drywall partitions

PRODUCT FEATURES

- BAILEY designed, tested and patented product
- · Available steel stud web widths
- 3 5/8", 6" and 8"
- Available in .033" (20ga) .068" (14ga) material thickness
- Comparative tests have established that the BAILEY BENT TAB STUD Bridging Channel System can be used in place of the traditional Clip Angle Bridging Channel System
- Current Bailey limiting heights tables apply

KEY BENEFITS

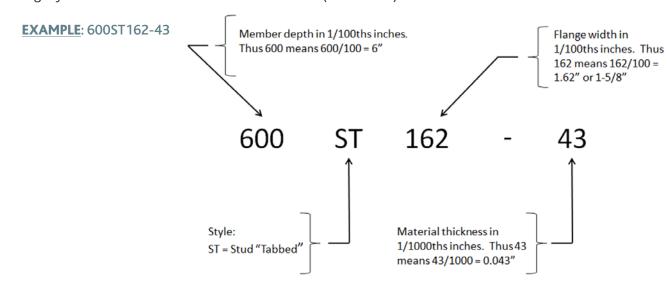
- Reduces material costs by eliminating the use of bridging clips and additional fasteners
- Improved installation time by requiring only a single fastener to attach the stud to the bridging channel
- Green Building Material: Makes walls more environmentally friendly by reducing material and waste

INSTALLATION

- Bend knockout tab perpendicular (90°) to the steel stud
- Pass the bridging channel through the open stud knockout
- Attach the bent tab to the bridging channel with one screw

ORDERING INFORMATION

• The **BAILEY BENT TAB STUD** Bridging Channel System uses the common designator method but modifies the code slightly to reflect the fact that the stud is tabbed "ST (stud tabbed).





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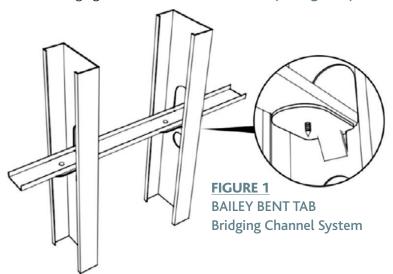
COMPARATIVE TESTING

The **BAILEY BENT TAB STUD** Bridging Channel System was developed to be used in place of the traditional Clip Angle Bridging Channel System. The critical stage during construction is when only outside sheathing is provided and the wind can cause compression of the unsupported stud flanges. After inside sheathing is applied, lateral torsional buckling of the studs is prevented.

In order to establish the structural performance/integrity of the **BAILEY BENT TAB STUD** Bridging Channel System in comparison to the traditional Clip Angle Bridging Channel System, physical tests were carried out at ArcelorMittal Dofasco under uniformly distributed loading. As can be observed from Table 1, the strength of the **BAILEY BENT TAB STUD** Bridging Channel System is equal to or greater in comparison to the Clip Angle Bridging Channel System.

The BAILEY BENTTAB STUD Bridging Channel System

consists of a bent tab, the knockout element, which is bent perpendicular to the stud, requiring only **one screw** to support the bridging channel at each stud location (see **Figure 1**).



Based on comparative tests, it has been established that the **BAILEY BENT TAB STUD** Bridging Channel System can be used in place of the traditional Clip Angle Bridging Channel System in curtain wall applications.

NOTES:

- * Average of three tests.
- + Average of two tests.
- Michael Gulas, "Bailey Bridging Channel UDL Test", ArcelorMittal, Hamilton, Ontario, Project No. CSF-AMA-003-PSD-002, September 18, 2019.
- The testing program was witnessed by: Dr. Reinhold M. Schuster, P.Eng., Distinguished Professor Emeritus, Department of Civil and Environmental Engineering University of Waterloo.

REFERENCE STANDARDS:

NBCC – National Building Code of Canada

CAN/CSA-S136 - North $\bar{\text{A}}$ merican Specification for the Design of Cold-Formed Steel Structural Members.

ASTM A653/A653M - Standard Specification for Steel Sheet Zinc-Coated. (Galvanized or Zinc-Iron Alloy Coated [Galvannealed]) by the Hot-Dip Process. ASTM C955 - Standard Specification for Cold-Formed Steel Structural Framing Members.

The Clip Angle Bridging Channel System

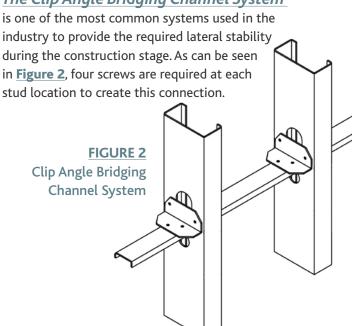
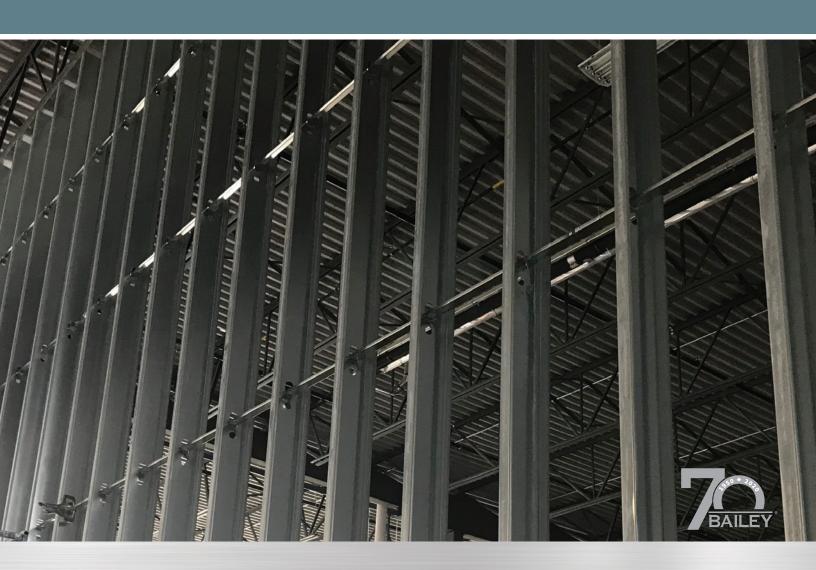


TABLE 1 - Summary of Test Failure Loads

<u> </u>			
TEST	SPECIMEN	CLIP ANGLE (psf)	BENT TAB (psf)
1	600ST162-33	82.3	78.3*
2	600ST162-43	121	131*
3	362ST162-33	50.6	56.8*
4	362ST162-43	79.6	82.3*
5	800ST162-43	178	163+



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