



# BAILEY BACKER BAR

**BAILEY BACKER BAR** was specifically designed to meet the demand for the attachment of multiple items and heavier items to interior partitions.

Today's building professionals require solutions to allow the attachment of such products and accessories to interior partition walls. Traditionally, backing systems have been costly, time-consuming and not necessarily performing to the required code specified load requirements. A common solution was to use 20 gauge steel studs, which is now not practical since many of these interior partition walls require a sound rating of STC 50+. Bailey Backer Bar, designed for use on 25 gauge studs, will also provide the necessary support without any reliance on the Gypsum Board or degrading the Gypsum Board finish.

#### Canadian Code Requirements: NBCC

The National Building Code of Canada (NBCC) provides specific load requirements for products and applications of this type (ie. wall bracket).

3.8.3.8.1.0 ...

"Be equipped with grab bars that are installed to resist a load of not less than 1.3kN (292 lb) applied vertically or horizontally"

9.31.2.3...Grab bars

1. When provided, grab bars shall be capable of resisting a load of not less than 1.3 kN (292 lb) applied vertically and horizontally

3.7.2.8...Grab bar installation

1. Grab bars that are installed shall resist a load not less than 1.3 kN (292 lb) applied vertically or horizontally

#### ULTIMATE LOAD VALUES

PRODUCT	ULTIMATE LOAD (LB)
Backer Bar	1616
Flat Strap Steel	414
Proprietary Plywood Backing System	792
Plywood	827

- Notes:**
- Listed load values are maximum test values
  - Designers must apply appropriate design safety factors
  - Tabulated loads do not include the contribution of gypsum board or other wall sheathing
  - Tested in accordance with CSA S136-12 and NBCC sections 3.8.3.8.1.0, 9.31.2.3, and 3.7.2.8

#### AVERAGE ULTIMATE SCREW PULL-OUT VALUES (BACKER BAR)

NOMINAL SCREW SIZE	ULTIMATE LOAD EACH	ULTIMATE LOAD 4 SCREWS
#6	296 lb	1184 lb
#8	298 lb	1192 lb
#10	299 lb	1196 lb
#12	390 lb	1560 lb
#14	562 lb	2248 lb

**Note:** Pull-Out Values Reference from ITW Buildex

#### Performance Test Results

In order to install any Grab Bar, it must have two ends, which means that each end must be capable of resisting 1.3 kN/2 = 0.65 kN (292 lb/2 = 146 lb.) Typically, wall bracket manufacturers give ultimate loads and let the user of the product assign a factor of safety. Assuming that the value of the largest eccentricity is used, the ultimate load would be 620 lb.

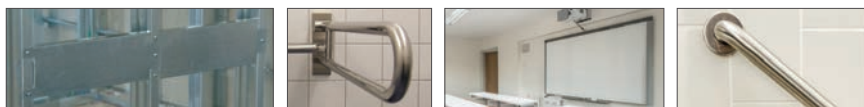
Using CSA S136-12, the calibrated resistance factor based on the BAILEY Backer Bar tests without Gypsum Board would be,  $\Phi = 0.476$  (see table), and the specified load would then be  $0.476(620)/1.5 = 197 \text{ lb}$ . Since this is greater than the code specified **146 lb**, the BAILEY Backer Bar without Gypsum Board would meet the NBCC design criteria for grab bars.

The performance of the Bailey Backer Bar was tested against 20 gauge flat strap, site cut 3/4" plywood, and proprietary plywood backing systems. In every case, the Bailey Backer Bar demonstrated superior performance, and exceeded NBCC design criterion for grab bars.

#### RESISTANCE FACTOR CALCULATION (S136-12)

Phi	0.476
SF	3.360
$C_{\phi}$	1.42
$M_m$	1.1
$F_m$	1.0
$P_m$	1.0
$\beta_o$	4.0
$V_m$	0.1
$V_f$	0.1
n	3
$C_p$	5.7
$V_p$	0.065
$V_q$	0.21

THE STRENGTH WITHIN



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# HIGHER LOAD CAPACITY & EASY TO INSTALL!



## PATENTED BAILEY BACKER BAR

**COMMONLY USED IN:** hospitals, medical centers, schools, hotels/motels, assisted living, condominiums, and others.

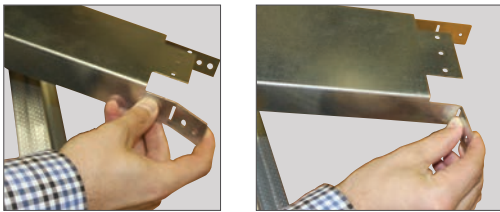
**TYPICAL APPLICATIONS:** hospital handrails, towel & shower bars, cabinets & shelves, chalkboards, wall-mounted televisions.

### FEATURES AND BENEFITS

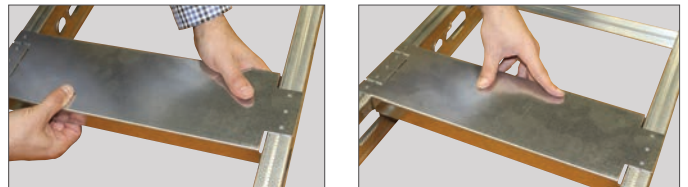
- Exceeds the National Building Code of Canada (NBCC) load requirements for grab bars
- Offers approximately twice the load capacity of traditional plywood backing systems.
- Ultimate load capacity of over 1100 lbs., with or without gypsum board
- Installs quickly and easily
- No cutting or notching
- Available in 12", 16", and 24" spacing
- For use on non-loadbearing or load bearing studs.

## QUICK, EASY INSTALLATION

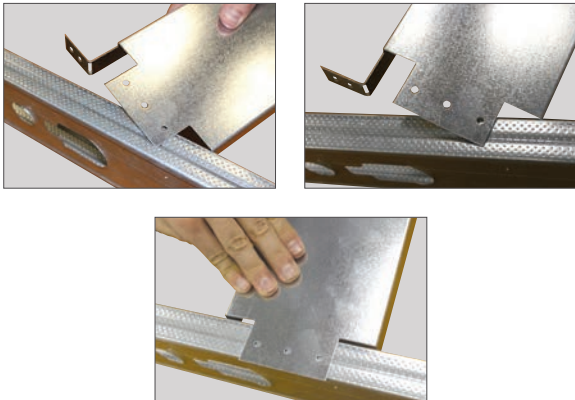
### 1. Bend the tabs



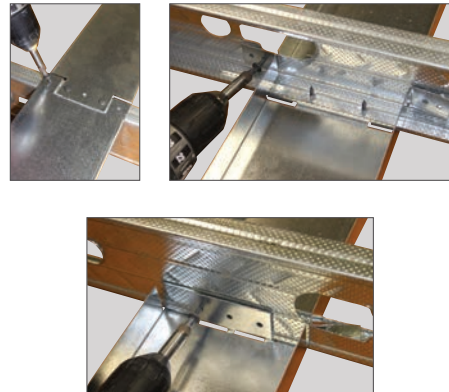
### 3. Adjust bar to desired location



### 2. Twist bar into place



### 4. Secure backing bar to the framing member using 4 #14 screws and then repeat the process.



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