

Wellbeing Fold Up Bariatric Grab Rail 300kg

A lightweight operation fold-up grab rail which takes a dynamic load of 300kgs, locks in the “up” position.

304 grade Satin stainless steel tubing.

Designed for maximum strength and user confidence.

ECBARFOLDGR

FEATURES

- Wall mounted
- Folds up when not in use
- 304 grade Satin stainless steel tubing
- Extends 850mm off wall
- Tested to withstand dynamic load of 300kg
- Designed and engineered for maximum strength when fixed to F17 constructed wall

Product Codes

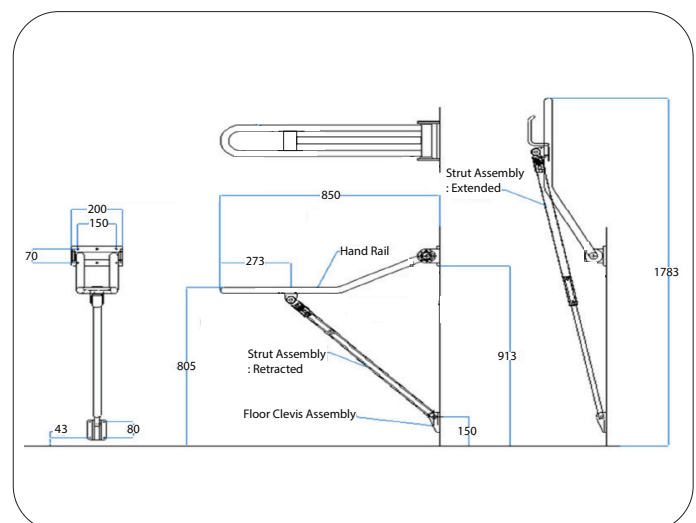
ECBARFOLDGR Fold Up Bariatric Grab Rail -
Stainless Steel Finish



Fixing screws are not supplied with this product. Ensure the product is installed on a solid wall surface with firm wall backing using appropriate fixing method. Structural engineers or licensed tradespersons should be consulted for appropriate advice on suitability of the fasteners and wall structure before affixing or installing any Enware products. Enware does not provide any warranty in relation to bolts, screws or other fasteners used with Enware products.

NOTE: Enware Australia advises:

1. Due to ongoing Research and Development, specifications may change without notice.
2. Component specifications may change on some export models.
3. Refer to Warranty Statement for warranty details - www.enware.com.au/warranty



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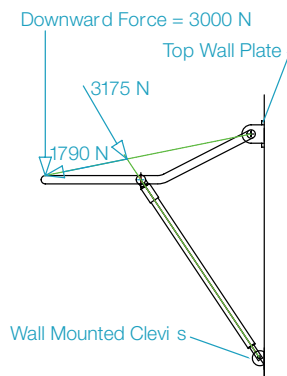
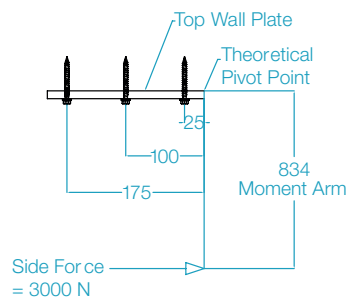
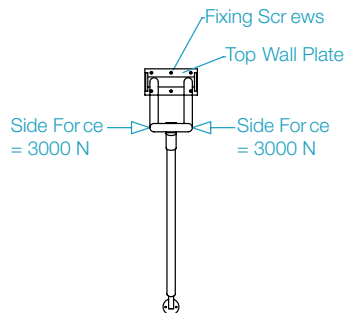
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INSTALLATION GUIDE

BARIATRIC GRAB RAIL (FOLD UP) COMPUTATIONS



1. Side Load on Fixing Screws

Assumptions:

1. The side force is applied at the further most part of the rail, 834mm from the wall;
 2. All of the side load is taken by top wall plate;
 3. The top wall plate is supported by 6 x 10-12 Type 17 Fixing Screws;
 4. All Fixing Screws are embedded minimum of 25mm into F17 Hardwood;
 5. From Buildex Data Sheet 03103-PD, pullout force = 5200Newtons
- Resisting Moment provided by Top Wall Plate attached by Fixing Screws into F17 hardwood. Resisting Moment = $(0.025 \times 5200 \times 2) + (0.100 \times 5200 \times 2) + (0.175 \times 5200 \times 2) = 3120 \text{ NM}$ Moment applied by 3000N force @834mm = $3000 \times 0.834 = 2502 \text{ NM}$

Conclusion: The Top Wall Plate using Buildex 10-12 Type 17 fixing screws into F17 hardwood is capable of supporting a 3000N side load applied at the furthestmost part of the rail, 834mm from the wall.

2. Downward Load on Fixing Screws

Assumptions:

1. The downward load is applied at the further most part of the rail, 834mm from the wall;
 2. The downward load is supported by both the Floor Mounted Clevis and the Top Wall Plate;
 3. The top wall plate is supported by 6 x 10-12 Type 17 Fixing Screws;
 4. All Fixing Screws are embedded minimum of 25mm into F17 Hardwood;
 5. From Buildex Data Sheet 03103-PD, pullout force = 5200Newtons.
- From the force diagram the pullout force on the Wall Plate is 1790Newtons
6 x Buildex 10-12 Type 17 Fixing Screws are able to support 31,200 Newtons

Conclusion: The Top Wall Plate using Buildex 10-12 Type 17 fixing screws into F17 hardwood is capable of supporting a 3000N downward load applied at the furthestmost part of the rail, 834mm from the wall.

Date compiled: 11/03/2014 By: Grant Della B. Eng. (Mech)

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BUILDEX 03103-PDS | 10-12 HEX WASHER TYPE 17 | BUILDEX SCREWS | WWW.BUILDEX.COM.AU

Application: Buildex A10-12 Hex Washer Type 17 is designed for a variety of applications for fixing to timbers - fencing - furniture - pergolas and side cladding.

Drilling Capacity: Timber F7 to F27

Installation Instructions:

1. Use a 5/16 Driver Bit (Buildex A Part Number 1-991-1366-9).
2. Use a mains powered or cordless screw driver with a 2,500 RPM speed.
3. Fit the Driver Bit into the screw and place at the fastening position.
4. Apply consistently firm pressure (end load) to the screw driver until the screw has drilled and fastened.

Material: Carbon Steel SAE 1022

Heat Treatment: To AS 3566.1

Finish: Zinc Plate or Climaseal A3

Mechanical Properties: Single Shear Strength (N) 8,100 | Axial Tensile Strength (N) 9,400 | Torsion Strength (Nm) 7.3

Pullout Values:

20 mm Embedment: F5 (Pine) Timber (N) 3,000 | F8 Timber (N) 2,300 | F17 (Hardwood) Timber (N) 3,800

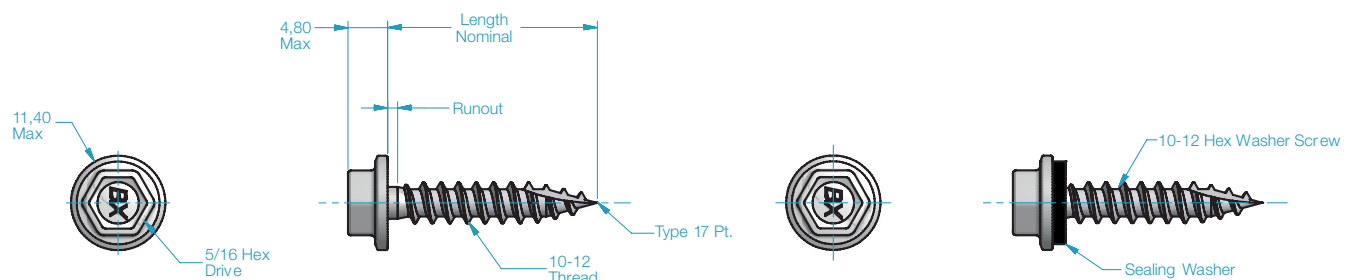
25 mm Embedment: F5 (Pine) Timber (N) 3,800 | F8 Timber (N) 3,500 | F17 (Hardwood) Timber (N) 5,200

30 mm Embedment: F5 (Pine) Timber (N) 3,800 | F8 Timber (N) 3,900 | F17 (Hardwood) Timber (N) 6,000

All values are averages obtained under laboratory conditions and appropriate safety factors should be applied for design purposes. *These figures are applicable to Buildex A head marked product only.*

Corrosion Performance: Buildex A 10-12 Hex Washer Type 17 with Climaseal A 3 finish complies to Australian Standards AS3566.2 Class 3 Specify your corrosion performance requirements when ordering

Part Number	Description	Pack Qty	Pallet Qty
6-031-0063-2CS	10-12 x 20 Hex Washer Type 17 Climaseal 3	1,000 / 4,000	288,000
6-030-0048-8CS	10-12 x 20 Hex Washer Type 17 with Neo Climaseal 3	1,000 / 3,000	216,000
6-031-0053-8CS	10-12 x 25 Hex Washer Type 17 Climaseal 3	1,000 / 3,000	216,000
6-030-0001-2CS	10-12 x 25 Hex Washer Type 17 with Neo Climaseal 3	1,000 / 3,000	216,000
6-031-0005-1CS	10-12 x 30 Hex Washer Type 17 Neo Climaseal 3	1,000 / 3,000	216,000
6-030-0068-7CS	10-12 x 30 Hex Washer Type 17 with Neo Climaseal 3	1,000 / 3,000	216,000



Description		Length	Runout
10-12 x 20 Hex Washer	T17	18.5 / 20.0	1.4 Max.
10-12 x 25 Hex Washer	T17	23.5 / 25.0	1.4 Max.
10-12 x 30 Hex Washer	T17	28.5 / 30.0	1.4 Max.

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