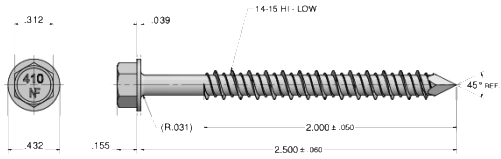
# ACS-HWH Concrete/CMU Screw – TECHNICAL DATA (USA)

- Manufactured by Leland Industries Inc.
- Standard Hex Head with Integrated Washer ($^{5}/_{16}$" Driver)
- Availability:
  **ACS U-Clip™:** #14 – 15 (TPI) x 2 ½" Length NZF3000 Coated 410 S/S

## FASTENER PERFORMANCE[1]

| | 410 Stainless Steel |
|---|---|
| **Minimum Tensile Strength (lbs)** | 1750 |
| **Minimum Torsional Strength (in-lbs)** | 160 |
| **Minimum Shear Strength (lbs)** | 2900 |




## CONCRETE ATTACHMENT

- For target fastener performance, driver should have an RPM range of 0-2400
- Requires concrete pilot hole with $^{3}/_{16}$" carbide-tipped drill bit
- Tension & Shear values for concrete application are based on minimum anchor spacing of 3" (12 x Diameter) and require minimum 3" Edge Distance

## USA ALLOWABLE STRESS DESIGN (ASD) FASTENER VALUES

| Concrete Strength | f'c ≥ 4000 psi |
|---|---|
| **Withdrawal (lbs)** [2] | 653 |
| **Shear (lbs)** [3] | 341 |

## CMU BLOCK ATTACHMENT[4]

- For target fastener performance, driver should have an RPM range of 0-2400
- Requires CMU pilot hole with $^{3}/_{16}$" carbide-tipped drill bit
- Tension & Shear based on minimum 3" Anchor Spacing & 3 ½" End/Edge Distance
- **Anchors Must Fall Within Face Shell (No Mortar Joint Attachments Permitted)**

## USA ALLOWABLE STRESS DESIGN (ASD) FASTENER VALUES

| CMU Strength | f'c ≥ 2000 psi |
|---|---|
| **Withdrawal (lbs)** [5] | 107 |
| **Shear (lbs)** [6] | 163 |

[1] All test results and suggestions are based on laboratory tests and/or relevant Codes. Specific job site conditions should be taken into consideration when specifying the proper fastener. Because applications vary, ACS Composite Systems Inc. assumes no liability for use of this information.

[2] Calculated with AISI S100-16 K2.1.2 with FS = 2.69 (ASD) using 2 ½" Fasteners and Min. 2" Embedment

[3] Calculated with AISI S100-16 K2.1.2 with FS = 4.03 (ASD) using 2 ½" Fasteners and Min. 2" Embedment

[4] CMU Values from Tests Using Standard 8" x 8" x 16" (Nominal) 2000 psi CMU Units

[5] Calculated with AISI S100-16 K2.1.2 with FS = 5 (ASD) using 2 ½" Fasteners and Full Face-Shell Penetration

[6] Calculated with CSA S136 K2.1.2 with FS = 2.79 (ASD) using 2 ½" Fasteners and Full Face-Shell Penetration