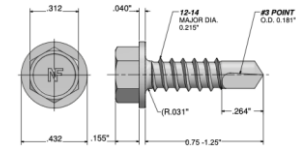


ACS-HWH MD3 - MASTER DRILLERS® – TECHNICAL DATA (USA)

- Manufactured by Leland Industries Inc.
- Standard Hex Head with Integrated Washer ($5/16$ " Driver)
- For target fastener performance, driver should have an RPM range of 0-2400
- Fastener capacity reduced by overdriving – limit driver torque/depth setting
- Availability:
 - ACS U-Clip™**: #12-14, #3 Drill Point, 3/4" Length, NZF3000 Coated Carbon Steel
 - ACS A-Clip®**: #12-14, #3 Drill Point, 3/4" Length, NZF3000 Coated 410 S/S
 - ACS S-Clip®**: #12-14, #3 Drill Point, 3/4" Length, NZF3000 Coated 410 S/S
 - ACS Spline System™**: #12-14, #3 Drill Point, 1 1/4" Length NZF3000 Coated 410 S/S



FASTENER PERFORMANCE¹ FASTENER MECHANICAL PROPERTIES

	Carbon Steel	410 Stainless Steel
Minimum Tensile Strength (lbs)	3500	4300
Minimum Torsional Strength (in-lbs)	88	130
Minimum Shear Strength (lbs)	2100	2590

TENSION/SHEAR – STEEL ATTACHMENT ALLOWABLE STRESS DESIGN (ASD)

Base Steel Attachment Gauge	20 Ga.		18 Ga.		16 Ga.	
Base Steel Attachment Material ²	A36	A304	A36	A304	A36	A304
Tension (lbs) ³	123.0	123.0	161.1	184.7	202.2	253.3
Shear (lbs) ⁴	247.9	257.3	369.0	453.7	539.8	541.0

SHEET STEEL PULLOVER – BASED ON NOMINAL 0.42" FASTENER HEAD DIAMETER⁵ ALLOWABLE STRESS DESIGN (ASD)

Steel Type ²	16 Ga	18 Ga	20 Ga	22 Ga	24 Ga
Galv. Carbon Steel	705.2	561.9	431.1	372.6	297.8
Stainless Steel	936.9	746.6	572.7	494.9	395.6

SHEET STEEL DESIGN THICKNESS REFERENCE⁶

Nominal Gauge	16 Ga	18 Ga	20 Ga	22 Ga	24 Ga
Thickness – mm	1.519	1.214	0.912	0.759	0.607
Thickness – Inches	0.0598	0.0478	0.0359	0.0299	0.0239

¹ All test results and suggestions are based on laboratory tests and/or 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 A36 Galvanized Steel Fy = 36 ksi, Fu = 60 ksi, A 304 Stainless Steel Fy = 33 ksi, Fu = 80 ksi

³ Calculated based on Lesser of Leland Published Data or AISI S100 J4.4.1 with FS = 3.0

⁴ Calculated based on Lesser of Leland Published Data or AISI S100 J4.3 with FS = 3.0

⁵ Calculated based on AISI S100-16 J4.4.2

⁶ Steel to Conform to the Requirements of CSA S136/AISI S100-16 – North American Specification for the Design of Cold-Formed Steel Structural Members