

CASCADIA CLIP®

FASTENER DATA SHEET - STEEL STUD APPLICATIONS

FEATURES & BENEFITS WHEN USED WITH CASCADIA CLIP®

- Standard 1/4" - 14 screw, with hex head and No. 2 drill point, manufactured by Leland Industries
- Available in 4" - 10" lengths
- **Best used with standard drill applying low pressure (1800-2200 RPMs)**
- Minimum embedment in steel studs of 0.5"
- Additional drill point options and 410 case hardened stainless steel available on request
- NZF3000 coating provides up to 3000 hours of rust-free performance in salt spray tests—5 times more than hot dip galvanizing and 60 times more than electro-plated
- Flange head design provides maximum pullover resistance

STANDARD MECHANICAL REQUIREMENTS

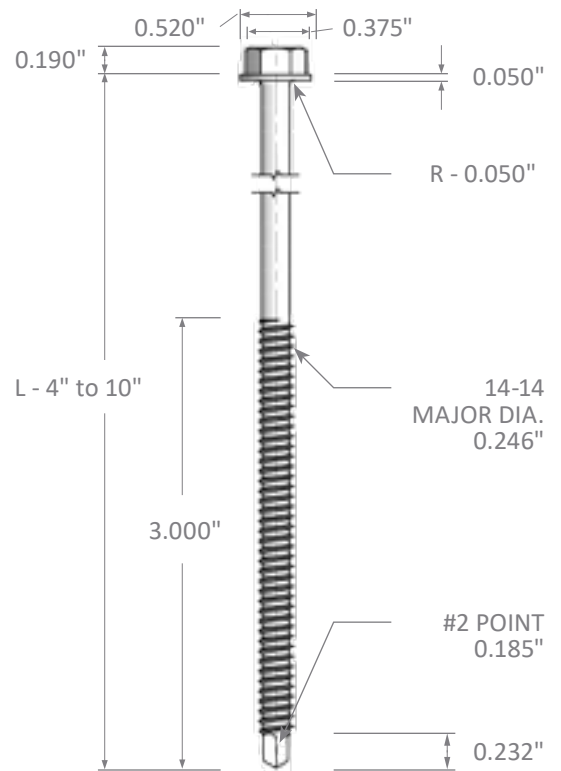
	CARBON STEEL	410 STAINLESS STEEL
Minimum Tensile Strength	4300 lbs.	4350 lbs.
Minimum Torsional Strength	156 in.-lbs.	160 in.-lbs.
Minimum Shear Strength	2580 lbs.	2610 lbs.

TECHNICAL DATA

SHEAR VALUES (IN CARBON STEEL SHEET)											
FASTENER DIAMETER	GAUGE										
	2X26 (0.036)	2X24 (0.046)	2X22 (0.060)	2X20 (0.072)	2X18 (0.096)	2X16 (0.120)	2X14 (0.150)	2X12 (0.210)	2X1/8 (0.250)	2X1/16 (0.375)	2X1/4 (0.500)
1/4 - 14	514	852	888	1247	1767	/	/	/	/	/	/

PULL-OUT VALUES (LBS)											
FASTENER DIAMETER	GAUGE										
	26	24	22	18	16	14	12	1/8	3/16	1/4	
1/4 - 14	169	268	317	648	925	1155	/	/	/	/	

MASTER DRILLER SCREW (NO. 2 DRILL POINT)



All test results and suggestions are based on laboratory tests. Specific job site conditions should be taken into consideration when specifying the proper fastener. Because applications vary, we assume no liability for use of this information.

CASCADIA CLIP®

FASTENER DATA SHEET - WOOD STUD APPLICATIONS

FEATURES & BENEFITS WHEN USED WITH CASCADIA CLIP®

- Standard #14 - 10 screw, with hex head and mini drill point, manufactured by Leland Industries
- Available in 4" - 10" lengths
- **Best used with standard drill applying low pressure (1500-2000 RPMs)**
- Minimum embedment in wood studs of 1"
- Additional drill point options and 410 case hardened stainless steel available on request
- NZF3000 coating provides up to 3000 hours of rust-free performance in salt spray tests—5 times more than hot dip galvanizing and 60 times more than electro-plated

STANDARD MECHANICAL REQUIREMENTS

	CARBON STEEL
Minimum Tensile Strength	4300 lbs.
Minimum Torsional Strength	156 in.-lbs.
Minimum Shear Strength	2580 lbs.

TECHNICAL DATA

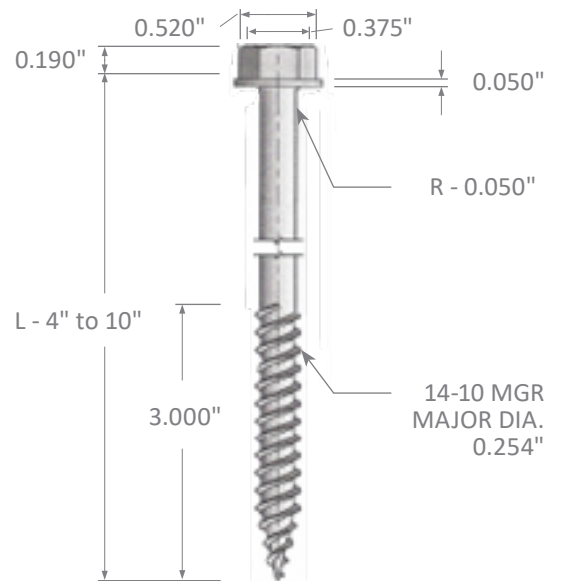
PULL-OUT STRENGTH AT 1" EFFECTIVE PENETRATION EXCLUDING POINT* EFFECT (ADD SAFETY FACTOR FOR STRUCTURAL DESIGN)						
COMMON NAME	DENSITY APPROX (LBS/CU.FT)	SPECIFIC GRAVITY (KGS/LITRE)	REMARKS	POINT EFFECT (INCH)	MIN. FORCE (LBS)	AVER. FORCE (LBS)
Douglas Fir	23	0.400	Kiln Dry Construction	0.37	600	670
Douglas Fir	35	0.560	Air Dry Structural	0.31	825	870
Ponderosa Pine	35	0.560	CCA Pressure Treated	0.37	725	830
Spruce Pine Fir	25	0.400	S Dry Construction	0.29	625	660
Canadian SPF	30	0.480	S Dry Construction	0.29	730	820
Southern Yellow	33	0.530	CCA Pressure Treated	0.26	770	840

Point Effect: is the maximum penetration depth that gives a pull force equal to zero.
 Cascadia Clip® online spacing calculator uses Spruce Pine Fir as base reference.

PULL-OUT STRENGTH NO POINT EFFECT - POINTS ARE CLEARED (ADD SAFETY FACTOR FOR STRUCTURAL DESIGN)						
COMMON NAME	DENSITY APPROX (LBS/CU.FT)	SPECIFIC GRAVITY (KGS/LITRE)	USE	THICKNESS (INCH)	MIN. FORCE (LBS)	AVER. FORCE (LBS)
Canadian Spruce (4 plys)	29.21	0.468	Exterior	1/2	250	270
Canadian Spruce (5 plys)	29.40	0.471	Exterior	5/8	350	420
Canadian Spruce (6 plys)	30.80	0.493	Exterior	3/4	450	530

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MASTER GRIPPERS SCREW (MINI DRILL POINT)



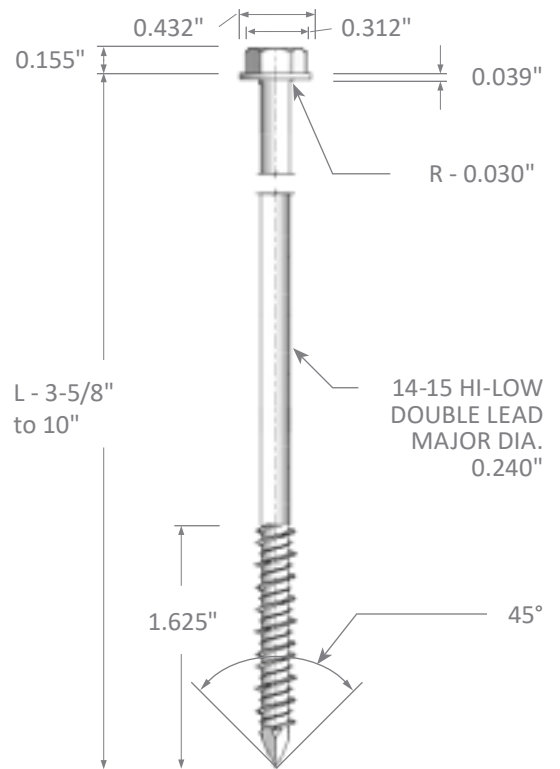
CASCADIA CLIP®

FASTENER DATA SHEET - CONCRETE APPLICATIONS

FEATURES & BENEFITS WHEN USED WITH CASCADIA CLIP®

- Standard 14-15 X 5-5/8" screw, with hex washer head, manufactured by Leland Industries
- Available in 3-5/8" - 9-3/4" lengths
- Pre-drill backup wall using a 3/16" diameter concrete drilling bit
- **Can be installed with impact guns, hammer drills or standard cordless drills. Care should be taken not to over torque the fasteners.**
- Minimum embedment of 1.5"
- NZF3000 coating provides up to 3000 hours of rust-free performance in salt spray tests—5 times more than hot dip galvanizing and 60 times more than electro-plated
- Flange head design provides maximum pullover resistance

CONCRETE SCREW (NO. 2 DRILL POINT)



TECHNICAL DATA

FASTENER	CONFIGURATION	SUBSTRATE	MINIMUM LOAD (LBS)	AVERAGE (LBS)
4-7/8" long hex head concrete screws with 0.173" diameter shank and 1-1/2" threaded portion	1" fastener embedment with 1.5" drill hole depth	4000 psi concrete	469	633
	1.5" fastener embedment with 2" drill hole depth	4000 psi concrete	926	1294
	1" embedment	CMU	453	663

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