



**MADE IN USA**  
WITH GLOBALLY  
SOURCED MATERIALS



**SPAX**<sup>®</sup>

ENGINEERED  
FASTENERS

**POWERLAGS**<sup>®</sup>

The high-performance, low-cost replacement for the conventional lag.

# POWERLAGS

## HIGH PERFORMANCE HIGH VALUE

### THE LARGEST SELECTION OF IRC/IBC CODE COMPLIANT STRUCTURAL WOOD-TO-WOOD FASTENERS IN THE INDUSTRY.

SPAX® PowerLags® offer an unparalleled level of fastening efficiency, reliability and value for structural wood assemblies and heavy carpentry. Available in two head styles, four diameters, lengths up to 12", and coating systems that include use in treated lumber, you can be sure you'll have the right fastener for the application. PowerLags' patented thread technology makes installation faster and easier, with connections that are IRC/IBC code compliant. Why settle for conventional lags or structural lag screws with limited selection and narrow application? Compare the performance and value of American-made SPAX PowerLags.

SPAX® PowerLags® are sold in project-friendly packaging quantities that help minimize your building material costs: by the piece, 12 count Project Pax®, 25 or 50 count Contractor Pax®, and Bulk Pails (by special order). Refer to the Product Selection Charts included in this brochure for the current available offering of Project Pax, Contractor Pax, and Bulk Pails.



### T-STAR WASHER HEAD PERFORMANCE SPECIFICATIONS

Per DrJ Report No. 1912-07

DIAMETER	LENGTH	ALLOWABLE WITHDRAWAL (W), HEAD PULL-THROUGH (W <sub>H</sub> ), LATERAL SHEAR PARALLEL TO GRAIN (Z <sub>  </sub> ), AND LATERAL SHEAR PERPENDICULAR TO GRAIN (Z <sub>⊥</sub> ) VALUES <sup>1,2,3,4,5,6,7</sup>											
		SOUTHERN PINE (G=0.55)				DOUGLAS-FIR (G=0.50)				HEM FIR & SPRUCE-PINE-FIR (G=0.42)			
		WITHDRAWAL	HEAD PULL-THROUGH	LATERAL SHEAR		WITHDRAWAL	HEAD PULL-THROUGH	LATERAL SHEAR		WITHDRAWAL	HEAD PULL-THROUGH	LATERAL SHEAR	
		(W)	(W <sub>H</sub> )	Z <sub>  </sub>	Z <sub>⊥</sub>	(W)	(W <sub>H</sub> )	Z <sub>  </sub>	Z <sub>⊥</sub>	(W)	(W <sub>H</sub> )	Z <sub>  </sub>	Z <sub>⊥</sub>
(lbs./inch)	(lbs.)	(lbf.)	(lbf.)	(lbs./inch)	(lbs.)	(lbf.)	(lbf.)	(lbs./inch)	(lbs.)	(lbf.)	(lbf.)		
1/4"	< 3"	375	850	305	285	310	785	265	235	245	585	250	225
	3.5"			390	370			360	340			315	285
	ALL OTHER LENGTHS			400	370			360	335			350	310
5/16"	< 3"	415	965	340	305	300	840	310	280	250	665	265	230
	3.5"			400	380			360	340			325	300
	ALL OTHER LENGTHS			440	405			405	375			380	355
3/8"	ALL	465	1245	530	485	300	1085	475	440	280	880	445	405

<sup>1</sup> "Withdrawal", "Head Pull-Through", and "Lateral Shear" design values shall be adjusted by all applicable adjustment factors per NDS Table 11.3.1.

<sup>2</sup> "Withdrawal" design values are to be multiplied by the length of the thread penetration into the side grain of the main member. Length includes tip.

<sup>3</sup> "Withdrawal" design values are from the main member, and "Head Pull-Through" design values are based on a minimum of 1-1/2" side member thickness.

<sup>4</sup> Tabulated "Withdrawal" and "Head Pull-Through" design values are for the wood species with the listed assigned specific gravities. Where the wood species assigned specific gravity is not listed, use the next lower assigned specific gravity values.

<sup>5</sup> Tabulated "Lateral Shear" design values are for the wood species with the listed assigned specific gravities applied to both the main and side members. Where the members are different assigned specific gravities, use the lower of the two.

<sup>6</sup> Tabulated "Lateral Shear" design values require fasteners must be oriented perpendicular to the side grain, and the underside of the fastener head be installed flush with the surface of the side member.

<sup>7</sup> Tabulated "Lateral Shear" design values require a minimum fastener penetration into the main member of 1.375" for fasteners less than 4" and 2.375" for all other lengths.

\*Hex head values can be obtained online.

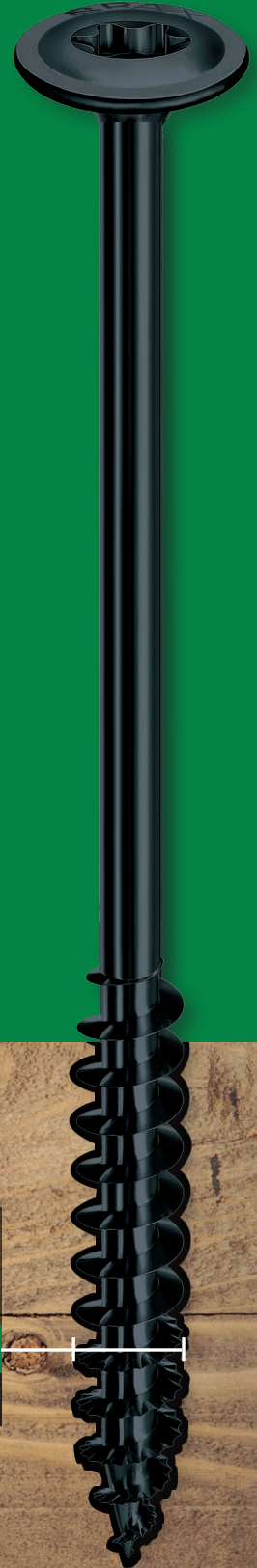
NOTE: When comparing published performance data of comparable structural fasteners, one should pay close attention that the load capacities are shown as either "allowable" or "ultimate" values to ensure an accurate comparison. For your convenience, the performance specifications listed in the chart above are the "allowable load" that can be applied to determine the acceptable working load for the respective diameter SPAX PowerLag. These values are calculated by applying a safety factor to the "average ultimate load capacity" obtained from laboratory testing.

SPAX® POWERLAGS®

# SAY GOODBYE TO THE CONVENTIONAL LAG

SPAX® PowerLags® offer the largest selection of code-recognized structural wood-to-wood fasteners in the industry. Featuring SPAX patented thread technology, they require no pre-drilling (1/4" and 5/16"), and drive faster and easier than conventional lags and other structural screws.

- Independently tested DrJ Engineering Technical Evaluation Reports (TER No. 1912-07; Structural Wood Fastener Properties, TER No. 1711-01; Deck Ledger Attachment and TER No. 1802-03; Multi-ply: LVL Beams & Girder Truss Applications)
- Heat treated for strength and durability
- Patented thread serrations require up to 40% less driving torque to increase installation speed while helping prevent cracking in logs
- Built-on washer head designs eliminate the need and extra cost of a separate washer
- Fastener length stamp on the head provides convenient identification without measuring and aids on-site inspections
- No pre-drilling (1/4" and 5/16")



## NOT ALL FASTENERS ARE CREATED EQUAL

Our Green Box Guarantee ensures honest, accurate sizing—not every manufacturer can say the same.

**GREENBOX  
GUARANTEE**

When we say 5/16",  
we mean 5/16"

5/16" **SPAX** = 5/16"

5/16" **COMPETITOR** = 1/4"



**50%**  
**FEWER FASTENERS  
NEEDED**

## BUY LESS. DO MORE.

Today's jobs demand time savings without the tradeoff. SPAX® PowerLags® require an average of 50% fewer fasteners for ledger board applications compared to competing structural fasteners.

# T-STAR WASHER HEAD



▲ TER No. 1711-01  
Deck Ledger  
Attachment

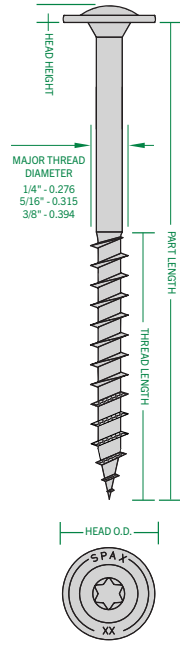
■ TER No. 1802-03  
Multi-ply Sawn  
Lumber Assemblies

● TER No. 1802-03  
Multi-ply Engineered  
Wood (LVL, PSL,  
LSL) Assemblies

**YELLOW ZINC**  
INTERIOR USE



**HCR**  
EXTERIOR USE



PRODUCT SELECTION & SPECIFICATIONS					PART NUMBERS - YELLOW ZINC								PART NUMBERS - TREATED LUMBER / EXTERIOR APPLICATIONS							
DIA. X LENGTH	DRIVE BIT	THREAD LENGTH	HEAD HEIGHT	HEAD O.D.	QUANTITY	INDIVIDUAL	QUANTITY	PROJECT PAX*	QUANTITY	CONTRACTOR PAX*	QUANTITY	BULK PAIL	QUANTITY	INDIVIDUAL	QUANTITY	PROJECT PAX*	QUANTITY	CONTRACTOR PAX*	QUANTITY	BULK PAIL
1/4" x 2-1/2"	T30	1.375"	0.097"	0.697"	1	4581020700637	12	45810207006343	50	4581020700635	500	3581020700630	1	4581820700637	12	45818207006343	50	4581820700635	500	3581820700630
1/4" x 3"	T30	1.790"	0.097"	0.697"	1	4581020700767	12	45810207007643	50	4581020700765	500	3581020700760	1	4581820700767	12	45818207007643	50	4581820700765	500	3581820700760
1/4" x 3-1/2"	T30	1.960"	0.097"	0.697"	1	4581020700907	12	45810207009043	50	4581020700905	500	3581020700900	1	4581820700907	12	45818207009043	50	4581820700905	500	3581820700900
1/4" x 4"	T30	2.375"	0.097"	0.697"	1	4581020701007	12	45810207010043	50	4581020701005	500	3581020701000	1	4581820701007	12	45818207010043	50	4581820701005	500	3581820701000
1/4" x 4-1/2"	T30	2.375"	0.097"	0.697"	1	4581020701557	12	45810207015543	50	4581020701555	500	3581020701550	1	4581820701557	12	45818207015543	50	4581820701555	500	3581820701550
1/4" x 5"	T30	2.375"	0.097"	0.697"	1	4581020701277	12	45810207012743	50	4581020701275	500	3581020701270	1	4581820701277	12	45818207012743	50	4581820701275	500	3581820701270
1/4" x 6"	T30	2.375"	0.097"	0.697"	1	4581020701527	12	45810207015243	50	4581020701525	500	3581020701520	1	4581820701527	12	45818207015243	50	4581820701525	500	3581820701520
5/16" x 2-3/8"	T40	1.375"	0.140"	0.776"	-	-	-	-	-	-	500	3581020800600	-	-	-	-	-	-	-	-
5/16" x 3"	T40	1.650"	0.140"	0.776"	1	4581020800767	12	45810208007643	50	4581020800765	250	3581020800760	1	4581820800767	12	45818208007643	50	4581820800765	250	3581820800760
5/16" x 3-1/2"	T40	2.050"	0.140"	0.776"	1	4581020800907	-	-	50	4581020800905	250	3581020800900	1	4581820800907	12	45818208009043	50	4581820800905	250	3581820800900
5/16" x 4"	T40	2.375"	0.140"	0.776"	1	4581020801007	12	45810208010043	50	4581020801005	250	3581020801000	1	4581820801007	12	45818208010043	50	4581820801005	250	3581820801000
5/16" x 4-1/2"	T40	2.375"	0.140"	0.776"	1	4581020801157	-	-	50	4581020801155	250	3581020801150	1	4581820801157	12	45818208011543	50	4581820801155	250	3581820801150
5/16" x 5"	T40	2.375"	0.140"	0.776"	1	4581020801277	-	-	-	-	-	-	1	4581820801277	12	45818208012743	50	4581820801275	250	3581820801270
5/16" x 6"	T40	2.375"	0.140"	0.776"	1	4581020801527	-	-	-	-	-	-	1	4581820801527	12	45818208015243	50	4581820801525	250	3581820801520
5/16" x 6-3/4"	T40	2.375"	0.140"	0.776"	-	-	-	-	-	-	-	-	-	-	-	-	50	4581820801715	250	3581820801710
5/16" x 8"	T40	2.375"	0.140"	0.776"	-	-	-	-	-	-	-	-	1	4581820802037	12	45818208020343	50	4581820802035	150	3581820802030
5/16" x 10"	T40	2.375"	0.140"	0.776"	-	-	-	-	-	-	-	-	1	4581820802547	12	45818208025443	50	4581820802545	150	3581820802540
5/16" x 12"	T40	2.375"	0.140"	0.776"	-	-	-	-	-	-	-	-	1	4581820803047	-	-	50	4581820803045	150	3581820803040
3/8" x 5"	T50	3.150"	0.173"	0.970"	1	4581021001277	-	-	25	4581021001275	150	3581021001270	1	4581821001277	12	45818210012743	25	4581821001275	150	3581821001270
3/8" x 6"	T50	3.150"	0.173"	0.970"	1	4581021001527	12	45810210015243	25	4581021001525	150	3581021001520	1	4581821001527	12	45818210015243	25	4581821001525	150	3581821001520
3/8" x 8"	T50	3.150"	0.173"	0.970"	-	-	-	-	-	-	150	3581021002030	1	4581821002037	-	-	25	4581821002035	150	3581821002030
3/8" x 10"	T50	3.150"	0.173"	0.970"	1	4581021002547	-	-	-	-	150	3581021002540	1	4581821002547	-	-	-	-	150	3581821002540

\*NOTE: HCR (High Corrosion Resistant) Coating is for exterior use and in treated lumber. "HCR" is tested and recognized for use in ground contact pressure treated lumber for exterior, freshwater general construction applications (e.g., AWWA UC1-UC4A, UCFA).

# HEX WASHER HEAD

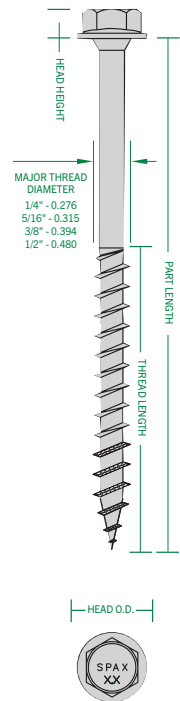


▲ TER No. 1711-01  
Deck Ledger  
Attachment

**ZINC**  
INTERIOR USE



**HCR**  
EXTERIOR USE



PRODUCT SELECTION & SPECIFICATIONS					PART NUMBERS - ZINC COATING						PART NUMBERS - TREATED LUMBER / EXTERIOR APPLICATIONS							
DIA. X LENGTH	DRIVE BIT	THREAD LENGTH	HEAD HEIGHT	HEAD O.D.	QUANTITY	INDIVIDUAL	QUANTITY	CONTRACTOR PAX*	QUANTITY	BULK PAIL	QUANTITY	INDIVIDUAL	QUANTITY	PROJECT PAX*	QUANTITY	CONTRACTOR PAX*	QUANTITY	BULK PAIL
1/4" x 1-1/2"	3/8"	Full	0.210"	0.545"	-	-	-	-	-	-	1	4571820700407	12	45718207004043	-	-	-	-
1/4" x 2"	3/8"	1.770"	0.210"	0.545"	1	4571010700507	50	4571010700505	500	3571010700500	1	4571820700507	12	45718207005043	50	4571820700505	500	3571820700500
1/4" x 3"	3/8"	2.360"	0.210"	0.545"	1	4571010700757	50	4571010700755	500	3571010700750	1	4571820700757	12	45718207007543	50	4571820700755	500	3571820700750
1/4" x 3-1/2"	3/8"	2.360"	0.210"	0.545"	1	4571010700907	50	4571010700905	500	3571010700900	-	-	-	-	-	-	-	-
1/4" x 4"	3/8"	2.375"	0.210"	0.545"	1	4571010701007	50	4571010701005	500	3571010701000	-	-	-	-	-	-	-	-
1/4" x 4-1/2"	3/8"	2.375"	0.210"	0.545"	1	4571010701157	50	4571010701155	500	3571010701150	-	-	-	-	-	-	-	-
1/4" x 5"	3/8"	2.375"	0.210"	0.545"	1	4571010701277	50	4571010701275	500	3571010701270	1	4571820701277	12	45718207012743	50	4571820701275	-	-
1/4" x 6"	3/8"	2.375"	0.210"	0.545"	1	4571010701527	50	4571010701525	500	3571010701520	1	4571820701527	12	45718207015243	50	4571820701525	500	3571820701520
5/16" x 3"	7/16"	2.360"	0.248"	0.591"	-	-	50	4571010800755	250	3571010800750	1	4571820800757	-	-	50	4571820800755	250	3571820800750
5/16" x 3-1/2"	7/16"	2.993"	0.248"	0.591"	-	-	-	-	-	-	1	4571820800907	-	-	50	4571820800905	250	3571820800900
5/16" x 4"	7/16"	2.993"	0.248"	0.591"	1	4571010801007	50	4571010801005	250	3571010801000	1	4571820801007	12	45718208010043	50	4571820801005	250	3571820801000
5/16" x 5"	7/16"	2.375"	0.248"	0.591"	-	-	-	-	-	-	1	4571820801277	12	45718208012743	50	4571820801275	250	3571820801270
3/8" x 5"	1/2"	3.150"	0.307"	0.748"	1	4571010101277	25	4571010101275	150	3571010101270	1	4571820101277	-	-	25	4571820101275	150	3571820101270
3/8" x 6"	1/2"	3.150"	0.307"	0.748"	1	4571010101527	25	4571010101525	150	3571010101520	1	4571820101527	-	-	25	4571820101525	150	3571820101520
3/8" x 8"	1/2"	3.150"	0.307"	0.748"	1	4571010102037	-	-	150	3571010102030	-	-	-	-	-	-	-	-
1/2" x 5"	5/8"	3.150"	0.394"	0.858"	1	4571010121277	25	4571010121275	100	3571010121270	1	4571820121277	-	-	25	4571820121275	100	3571820121270
1/2" x 6"	5/8"	3.150"	0.394"	0.858"	1	4571010121527	25	4571010121525	100	3571010121520	-	-	-	-	25	4571820121525	100	3571820121520
1/2" x 8"	5/8"	3.150"	0.394"	0.858"	-	-	-	-	100	35710101202030	1	4571820122037	-	-	-	-	100	35718201202030
1/2" x 10"	5/8"	3.150"	0.394"	0.858"	-	-	-	-	100	35710101202540	1	4571820122547	-	-	-	-	100	35718201202540
1/2" x 12"	5/8"	3.150"	0.394"	0.858"	-	-	-	-	-	-	-	-	-	-	-	-	100	35718201203040

\*NOTE: HCR (High Corrosion Resistant) Coating is for exterior use and in treated lumber. "HCR" is tested and recognized for use in ground contact pressure treated lumber for exterior, freshwater general construction applications (e.g., AWWA UC1-UC4A, UCFA).

# DO YOU KNOW WHERE YOUR FASTENERS WERE MADE?

While most of our competitors ship screws in from overseas, we continuously innovate and make our fasteners from the heart of America to reimagine what structural connections should be.

**SPAX**  
MANUFACTURED IN BRYAN, OH

**90%** OF STRUCTURAL WOOD-TO-WOOD FASTENERS  
**ARE MANUFACTURED  
OVERSEAS**



**MADE IN USA**  
WITH GLOBALLY  
SOURCED MATERIALS

SPAX fasteners are made in America by people that care about getting it right. That means our products are ready to deliver and stock right now from our Ohio HQ to our neighbors across the U.S.

SPAX® is a brand of ALTENLOH, BRINCK & CO. of Ennepetal, Germany, founded in 1823. Today, the SPAX brand represents a broad selection of engineered fasteners for the construction and automotive industries, and symbolizes the highest quality fastening solutions. It's one of the most recognized brands in Europe!

SPAX fasteners are sold nationwide through leading home improvement centers, hardware and fastener distribution chains, and in a growing number of lumber and building material dealers.



Connect with Us!



SPAX® is a brand of ALTENLOH, BRINCK & CO. US, INC.  
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**SPAX**®  
ENGINEERED  
FASTENERS

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S-1600 Rev 5/24