



IDENTIFICATION: ESR-3135 SECTION 7.1

The I-LAG™ brand screws are embossed with four I's radiating from the shank on the top portion of the collar as shown on Figure 1.



TABLE 2 — I-LAG™ BRAND EYE LAG SCREW FASTENER SHEAR AND TENSION STRENGTHS (lbf)

FASTENER TYPE	NOMINAL FASTENER SIZE	NOMINAL STRENGTH		ALLOWABLE STRENGTH (ASD)		DESIGN STRENGTH (LRFD)	
		Tension, P _{ts}	Shear, P _{ss}	Tension, (P _{ts} /Ω)	Shear, (P _{ss} /Ω)	Tension, (ΦP _{ts})	Shear, (ΦP _{ss})
750SD	1/4-14	1560	2527	520	872	780	1263
175SD	1/4-14	1560	2527	520	842	780	1263

For SI: 1 inch = 25.4 mm, 1 lbf = 4.4 N.

TABLE 3 — AVAILABLE TENSION LOADS FOR I-LAG™ BRAND EYE LAG SCREWS INSTALLED IN STEEL DECK PANELS (lbf)^{1,2}

FASTENER TYPE	MINIMUM DESIGN BASE METAL THICKNESS (inch)			
	0.030	0.036	0.047	0.062
ALLOWABLE STRENGTH (ASD)				
750 SD 175 SD	82	125	176	229
DESIGN STRENGTH (LRFD)				
750 SD 175 SD	131	201	281	366

For SI: 1 inch = 25.4 mm, 1 lbf = 4.4 N, 1 ksi = 6.895 MPa.

¹The tabulated allowable load values are for the screws only, based on fastener strength and pullout capacity. Ceiling wire capacity is outside the scope of this report. Deck capacity is also outside the scope of this report.

²Values are based on installation into steel having a minimum tensile strength, F_u, of 45 ksi.

ICC ESR-3135 Report Link:

<https://docsindustries.com/wp-content/uploads/2020/08/ESR-3135.pdf>

STI Specialized Testing link:

<https://docsindustries.com/wp-content/uploads/2013/07/Pull-out-tests-per-AISI-S905-08-Table-6.pdf>

