

# Lag Screw Shields

## Description

The Lag Screw Shield is a corrosion resistant anchor designed to be used with lag screws in concrete and the mortar joints of brick and block walls. For soft or weak masonry, the long version is recommended to add strength to the substrate. The short version is recommended for harder masonry materials to reduce drilling time.



Long



Short



## Key Features & Benefits

- ▶ Corrosion resistant – made of a zamac alloy
- ▶ Suitable for concrete, masonry and masonry joints
- ▶ Longer lengths add joint strength in softer materials
- ▶ Internally threaded anchor allows easy bolt removability and service work

## Specifications, Listings and Approvals

**Anchor Thread Diameters:** 1/4" - 5/8"

**Material:** Zamac Alloy

**Federal Specifications:** GSA FFS-325C, Group 2, Type 1, Class 1 (long), Class 2C (short)

## Applications

- ▶ Railings
- ▶ Removable Applications
- ▶ Soft and Hard Work Surfaces
- ▶ Outdoor Applications

## Installation Information

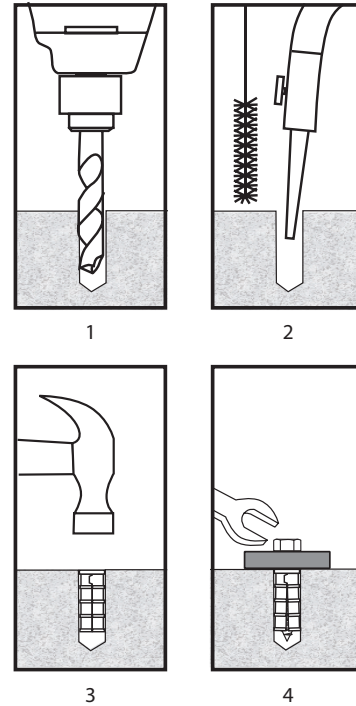
### Instructions

1. Drill the hole perpendicular to the work surface. To assure full holding power, do not ream the hole or allow the drill to wobble.

Drill the hole at least one anchor diameter deeper than the intended embedment, but not closer than two diameters to the bottom (opposite) surface of the concrete.

2. Clean the hole with a nylon brush and compressed air.
3. Insert anchor into the hole and tap flush.
4. Position fixture, insert bolt and tighten.

**NOTE: Always wear safety glasses.** Follow drill manufacturer's instructions. Use only solid carbide-tipped drill bits meeting ANSI B212.15 diameter standards.



## Installation Data

### Short

Catalog No.	Anchor Thread Dia. (in.)	Drill Bit Dia. (in.)	Thread Size (UNC)	Anchor Length (in.)	Thread Length (in.)	Installation Torque Approx. (ft.-lbs.)
LSS14	1/4	1/2	1/4-10	1	1/2	5
LSS56	5/16	1/2	5/16-9	1-1/4	3/4	7
LSS38	3/8	5/8	3/8-7	1-3/4	1	10
LSS12	1/2	3/4	1/2-6	2	1-1/8	20
LSS58	5/8	7/8	5/8-5	2	1	30

### Long

Catalog No.	Anchor Thread Dia. (in.)	Drill Bit Dia. (in.)	Thread Size (UNC)	Anchor Length (in.)	Thread Length (in.)	Installation Torque Approx. (ft.-lbs.)
LSS14	1/4	1/2	1/4-10	1-1/2	1	5
LSS56	5/16	1/2	5/16-9	1-3/4	1	7
LSS38	3/8	5/8	3/8-7	2-1/2	1-1/2	10
LSS12	1/2	3/4	1/2-6	3	1-7/8	20
LSS58	5/8	7/8	5/8-5	3-1/2	2-1/4	30



## Performance Data

### Long Ultimate and Allowable Load (lbs.) – Normal-Weight Concrete

Anchor Thread Dia. (in.)	Min. Embed. Depth (in.)	Allowable						Ultimate					
		2,000 psi		4,000 psi		6,000 psi		2,000 psi		4,000 psi		6,000 psi	
		Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear
1/4 Long	1-1/2	115	200	150	250	175	250	460	800	600	1000	700	1000
5/16 Long	1-3/4	153	250	170	270	155	270	610	1000	680	1080	620	1080
3/8 Long	2-1/2	248	300	285	350	345	350	990	1200	1140	1400	1380	1400
1/2 Long	3	318	345	513	400	590	400	1270	1380	2050	1600	2360	1600
5/8 Long	3-1/2	558	625	653	663	728	663	2230	2500	2610	2650	2910	2650

\*Allowable load capacities are calculated using an applied safety factor of 4:1

### Short Ultimate and Allowable Load (lbs.) – Normal-Weight Concrete

Anchor Thread Dia. (in.)	Min. Embed. Depth (in.)	Allowable						Ultimate					
		2,000 psi		4,000 psi		6,000 psi		2,000 psi		4,000 psi		6,000 psi	
		Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear
1/4 Short	1	75	200	85	250	100	250	300	800	340	1000	400	1000
5/16 Short	1 1/4	105	250	140	270	185	270	420	1000	560	1080	740	1080
3/8 Short	1 3/4	200	300	260	350	280	350	800	1200	1040	1400	1120	1400
1/2 Short	2	250	345	310	400	330	400	1000	1380	1240	1600	1320	1600
5/8 Short	2	348	625	403	663	420	663	1390	2500	1610	2650	1680	2650

\*Allowable load capacities are calculated using an applied safety factor of 4:1

### Short Ultimate and Allowable Load (lbs.) Hollow Concrete Masonry

Anchor Thread Dia. (in.)	Min. Embed. Depth (in.)	1,500 psi			
		Allowable Load		Ultimate Load	
		Tension	Shear	Tension	Shear
1/4 Short	1	50	148	200	590
5/16 Short	1-1/4	78	210	310	840
3/8 Short	1-1/2	163	230	650	920
1/2 Short	1-1/2	215	323	860	1290

\*Allowable load capacities are calculated using an applied safety factor of 4:1

### Short Ultimate and Allowable (lbs.) Clay Brick Masonry

Anchor Thread Dia. (in.)	Min. Embed. Depth (in.)	1,500 psi			
		Allowable		Ultimate	
		Tension	Shear	Tension	Shear
1/4 Short	1	50	205	200	820
5/16 Short	1-1/4	88	298	350	1190
3/8 Short	1-3/4	238	325	950	1300
1/2 Short	2	245	428	980	1710

\*Allowable load capacities are calculated using an applied safety factor of 4:1

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## Order Information



### Short Lag Screw Shields: Zamac Alloy

Catalog No.	Drill Bit Dia. (in.)	Lag Bolt Size	Anchor Length (in.)	Box Quantity	Carton Quantity
LSS14	1/2	1/4 - 10	1	50	1000
LSS56	1/2	5/16 - 9	1-1/4	50	1000
LSS38	5/8	3/8 - 7	1-3/4	50	500
LSS12	3/4	1/2 - 6	2	25	250
LSS58	7/8	5/8 - 5	2	25	250



### Long Lag Screw Shields: Zamac Alloy

Catalog No.	Drill Bit Dia. (in.)	Lag Bolt Size	Anchor Length (in.)	Box Quantity	Carton Quantity
LSL14	1/2	1/4 - 10	1-1/2	50	1000
LSL56	1/2	5/16 - 9	1-3/4	50	1000
LSL38	5/8	3/8 - 7	2-1/2	50	400
LSL12	3/4	1/2 - 6	3	25	250
LSL58	7/8	5/8 - 5	3-1/2	25	250

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