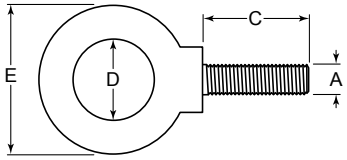
LIFTING EYE BOLTS

LIFTING EYE BOLTS — SHOULDER PATTERN

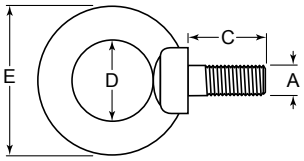


Design: Shoulder Pattern
Process: Forged
Threads: UNC
Material: 1045 Carbon Steel
Finish: Self-Colored (*other finishes available online*)

ITEM NUMBER	SHANK DIAMETER (A)	SHANK LENGTH (C)	ID (D)	OD (E)	RATED CAPACITY	WEIGHT/PC. (Approx.)
MEB014	1/4"	1"	3/4"	1-1/8"	600 lbs.	.05 lbs.
MEB516	5/16"	1-1/8"	7/8"	1-3/8"	1,000 lbs.	.09 lbs.
MEB038	3/8"	1-1/4"	1"	1-5/8"	1,500 lbs.	.18 lbs.
MEB716	7/16"	1-3/8"	1-3/32"	1-13/16"	1,800 lbs.	.26 lbs.
MEB012	1/2"	1-1/2"	1-3/16"	1-15/16"	2,500 lbs.	.36 lbs.
MEB916	9/16"	1-5/8"	1-1/4"	2-5/16"	3,500 lbs.	.65 lbs.
MEB058	5/8"	1-3/4"	1-3/8"	2-3/8"	4,200 lbs.	.75 lbs.
MEB034	3/4"	2"	1-1/2"	2-3/4"	5,500 lbs.	.98 lbs.
MEB078	7/8"	2-1/4"	1-11/16"	3-1/4"	7,500 lbs.	1.60 lbs.
MEB001	1"	2-1/2"	1-13/16"	3-3/4"	10,000 lbs.	2.75 lbs.
MEB118	1-1/8"	2-3/4"	2"	4-3/16"	12,000 lbs.	3.40 lbs.
MEB114	1-1/4"	3"	2-3/16"	4-1/2"	16,000 lbs.	4.70 lbs.
MEB112	1-1/2"	3-1/2"	3"	5-1/2"	22,000 lbs.	7.70 lbs.

Manufactured to ASME design specification B18.15.

METRIC DIN 580 — SHOULDER PATTERN



Design: DIN Specification
Process: Forged
Threads: Metric Coarse
Material: 1015 Carbon Steel
Finish: Self-Colored

ITEM NUMBER	SHANK DIAMETER (A)	THREAD PITCH	SHANK LENGTH (C)	ID (D)	OD (E)	RATED CAPACITY	WEIGHT/PC. (Approx.)
DIN006	6 mm	1.00 mm	12 mm	20 mm	36 mm	70 kgs.	0.05 kgs.
DIN008	8 mm	1.25 mm	13 mm	20 mm	36 mm	140 kgs.	0.06 kgs.
DIN010	10 mm	1.50 mm	17 mm	25 mm	45 mm	230 kgs.	0.11 kgs.
DIN012	12 mm	1.75 mm	21 mm	30 mm	54 mm	340 kgs.	0.18 kgs.
DIN014	14 mm	2.00 mm	27 mm	35 mm	63 mm	490 kgs.	0.28 kgs.
DIN016	16 mm	2.00 mm	27 mm	36 mm	64 mm	700 kgs.	0.29 kgs.
DIN018	18 mm	2.50 mm	30 mm	40 mm	72 mm	800 kgs.	0.41 kgs.
DIN020	20 mm	2.50 mm	30 mm	40 mm	72 mm	1,200 kgs.	0.45 kgs.
DIN022	22 mm	2.50 mm	33 mm	45 mm	81 mm	1,500 kgs.	0.67 kgs.
DIN024	24 mm	3.00 mm	36 mm	50 mm	90 mm	1,800 kgs.	0.87 kgs.
DIN027	27 mm	3.00 mm	40 mm	55 mm	99 mm	2,500 kgs.	0.88 kgs.
DIN030	30 mm	3.50 mm	45 mm	60 mm	108 mm	3,600 kgs.	1.66 kgs.
DIN033	33 mm	3.50 mm	50 mm	65 mm	117 mm	4,300 kgs.	1.72 kgs.
DIN036	36 mm	4.00 mm	54 mm	70 mm	126 mm	5,100 kgs.	2.65 kgs.
DIN042	42 mm	4.50 mm	63 mm	80 mm	144 mm	7,000 kgs.	4.70 kgs.
DIN048	48 mm	5.00 mm	68 mm	90 mm	166 mm	8,600 kgs.	7.00 kgs.
DIN056	56 mm	5.50 mm	78 mm	100 mm	184 mm	11,500 kgs.	10.00 kgs.
DIN064	64 mm	6.00 mm	90 mm	110 mm	206 mm	16,000 kgs.	12.20 kgs.
DIN080	80 mm	6.00 mm	112 mm	160 mm	296 mm	28,000 kgs.	37.73 kgs.
DIN100	100 mm	6.00 mm	130 mm	180 mm	330 mm	38,000 kgs.	45.00 kgs.

Manufactured to European DIN standards.

See Safe Lifting Chart on page 5. All rated capacities consider a straight vertical lift.
Use CAUTION when lifting. Any angle beyond vertical (zero degree) will reduce the rated capacity.
Full shank thread to shoulder.

SAFETY INFORMATION

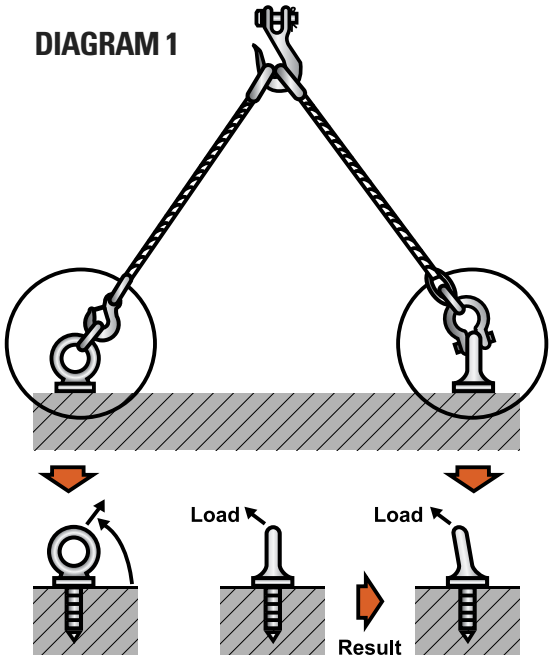
It is possible to make a lift, suspend certain objects, or construct barriers using a wide variety of hardware options. With so many choices available, how do you make sure you're using the right hardware for the job? As a supplier to the wholesale distributor market, Aztec Lifting Hardware does not regulate or provide engineering guidance over the selection of specific hardware for specific uses, and our distributors have no control as to how our products are used.

To ensure your end user customer selects the right hardware for the job, and is prepared to use this hardware correctly, we recommend consultation of industry publications relating to specifications, standards, and best practices for successful rigging and/or lifting.

Excellent information can be obtained through US Government publications regarding:
Crane, Hoist, and Rigging Safety (www.usa.gov) and (www.osha.gov);
DOE-STD-1090-2007 regarding Hoisting and Rigging Standards (www.eh.doe.gov).

The following charts and information will assist you:

DIAGRAM 1



Correct orientation - *Load is in the plane of the eye*

Incorrect orientation - *When the load is applied to the eye in this direction it will bend.*

1. It is important to ensure proper alignment of the installed eye bolts before lifting. Referring to **DIAGRAM 1:** an eye bolt can be turned ¼ turn to ensure proper lifting angles. Never pull across the flats of an eye bolt.

2. **TABLE 1** makes reference to the safe working load for shoulder pattern eye bolts. Machinery Lifting Eye Bolts in this catalog, and other catalogs to which you may refer, could show a higher Working Load Limit (WLL), or Rated Capacity (RC). Lifting Eye Bolts have a safety factor of five times the WLL/RC with proper seating and full thread engagement.

3. The RC of an eye bolt is determined from a straight, zero degree, lift. As **DIAGRAM 2** refers, a significant reduction in capacity is experienced any time a lift changes from zero degrees. Although the ANSI design specification denotes a working load capability for a 90° lift, we do not recommend using a lifting angle beyond 45°. When the angle of a lift is beyond 45° consider using a Swivel Hoist Ring.

SAFETY INFORMATION

TABLE 1: SAFE WORKING LOAD FOR CARBON STEEL SHOULDERED EYE BOLTS (ANSI/ASME B18.15)

NOMINAL SIZE	ID OF EYE (INCH)	SAFE WORKING LOAD PER SHOULDERED EYE BOLT (LBS.)			
		VERTICAL	30° FROM VERTICAL	60° FROM VERTICAL	90° FROM VERTICAL
1/4"	.69"	400 lbs.	75 lbs.	Not Recommended	Not Recommended
3/8"	.94"	1,000 lbs.	400 lbs.	220 lbs.	180 lbs.
1/2"	1.12"	1,840 lbs.	850 lbs.	520 lbs.	440 lbs.
5/8"	1.31"	2,940 lbs.	1,410 lbs.	890 lbs.	740 lbs.
3/4"	1.44"	4,340 lbs.	2,230 lbs.	1,310 lbs.	1,140 lbs.
1"	1.69"	7,880 lbs.	3,850 lbs.	2,630 lbs.	2,320 lbs.
1-1/4"	2.12"	12,600 lbs.	6,200 lbs.	4,125 lbs.	3,690 lbs.
1-1/2"	2.44"	18,260 lbs.	9,010 lbs.	6,040 lbs.	5,460 lbs.
2"	3.06"	32,500 lbs.	15,970 lbs.	10,910 lbs.	9,740 lbs.

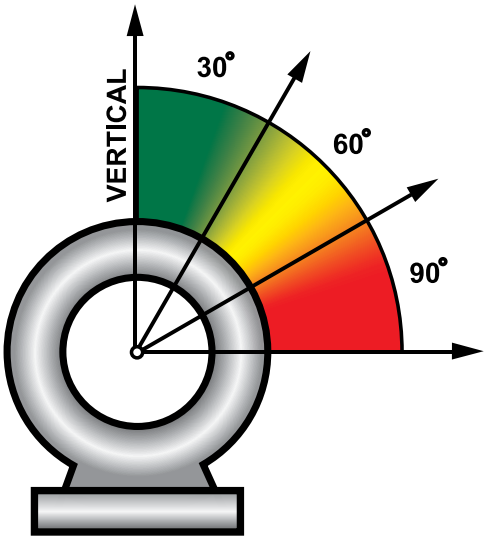


DIAGRAM 2

4. Rated capacities throughout this catalog assume a working temperature range between 30° and 275°F (-1° and 135°C), any use outside of these temperatures may not provide the same performance as listed.

5. Always ensure the RC of complimenting lifting components are in line with your lift requirements. Shackles, chain, eye bolts, pulleys and hooks must all be of the proper WLL/RC for the lift.

6. All hardware items should be inspected before and after each use. Lifting hardware showing signs of wear, thread damage, bending, elongation or defects of any kind should be replaced. To avoid the possibility of reusing defective hardware, defective items should be destroyed by cutting through the connecting area (i.e.: for eye bolts: cut through the eye portion. For shackles: cut through the side.)