AUSTLIFT[®] Lifting Your Business to A Higher Level USER MANUAL MEGA EYEBOLT

605208 - 605248 series: Mega Eyebolt with short thread 605508 - 605548 series: Mega Eyebolt with long thread



1300 100 120

Mega Eyebolt

- · Austlift Mega Eyebolts are designed and tested to EN818-4 and AS2318.
- · Working load limit (WLL) is constantly unchanged from horizontal to vertical, unique designed.
- · Made from G80 steel with orange powder coated finishing.
- Proof tested to 1.25 x WLL with ball bearing, tested again at 2 x WLL after the bearing was removed.

WARNING

- Swivel eyebolts should be tightened by a spanner with a torque wrench.
- These eyebolts are not designed for permanently rotating continuously.
- Not suitable for turning under full load at 90° in the side loading position.

Mega Eyebolt Specifications







| | SHORT THREAD | | | LONG THREAD | | | | | DIMENSIONS (mm) | | | | | | |
|--------------|--------------|------|-----------------------------|-------------|------|-----------------------------|------------|-----------|-----------------|----|----|-----|------|----|------|
| SIZE (mm) | CODE | | THREAD LENGTH L1 (mm) | CODE | | THREAD LENGTH L1 (mm) | WLL (T) | BL (T) | | | | D | | | |
| M8 | 605208 | 0.36 | 10.4 | 605508 | 0.39 | 76 | 0.3 | 1.2 | 14 | 30 | 35 | 55 | 52.5 | 8 | 35.6 |
| M10 | 605210 | 0.38 | 16 | 605510 | 0.43 | 96 | 0.63 | 2.52 | 14 | 30 | 35 | 55 | 52.5 | 10 | 36 |
| M12 | 605212 | 0.71 | 18 | 605512 | 0.8 | 114 | 1 | 4 | 18 | 36 | 40 | 68 | 54 | 12 | 44 |
| M14 | 605214 | 0.72 | 21 | 605514 | 0.86 | 140 | 1.22 | 4.8 | 18 | 36 | 40 | 68 | 54 | 14 | 45 |
| M16 | 605216 | 0.74 | 24 | 605516 | 0.92 | 194 | 1.5 | 6 | 18 | 36 | 40 | 68 | 54 | 16 | 46 |
| M18 | 605218 | 1.16 | 26 | 605518 | 1.47 | 180 | 2 | 8 | 16 | 50 | 54 | 83 | 80 | 18 | 57 |
| M20 | 605220 | 1.21 | 30 | 605520 | 1.49 | 187 | 2.5 | 10 | 16 | 50 | 54 | 83 | 80 | 20 | 58 |
| M24 | 605224 | 1.37 | 35 | 605525 | 1.89 | 222 | 4 | 16 | 18 | 50 | 54 | 83 | 94 | 24 | 60 |
| M27 | 605227 | 4.18 | 38 | 605527 | 5.22 | 270 | 4 | 16 | 27 | 68 | 73 | 119 | 106 | 27 | 82 |
| M30 | 605230 | 4.40 | 48 | 605530 | 5.35 | 279 | 5 | 20 | 27 | 68 | 73 | 119 | 106 | 30 | 84 |

* Specifications up to change without notification.

FEATURES



Hexogen bolt with allen key set for your convenience.



The lifting eye is held in position by the internal spring, allowing it to be set at a specific angle.

WORKING LOAD LIMIT CHART

| METRIC | WORKING LOAD LIMIT (T) | | | | | | | | | |
|-------------------|------------------------|------|------------|------|--------|-----------------|-----------------|---------|------------|--|
| LOADING METHOD | | | | 2 | | | 30 | | 3 or 4 | |
| INCLINATION | 0 ° | 90° | 0 ° | 90° | 0°-45° | SYMM 45°-60° | ETRIC 0°-45° | 45°-60° | ASYMMETRIC | |
| SAFETY FACTOR | | | | | | | | | | |
| LOAD FACTOR | 1.0 | 1.0 | 2.0 | 2.0 | 1.4 | 1.0 | 2.1 | 1.5 | 1.0 | |
| M8 | 0.3 | 0.3 | 0.6 | 0.6 | 0.42 | 0.3 | 0.63 | 0.45 | 0.3 | |
| M10 | 0.63 | 0.63 | 1.26 | 1.26 | 0.88 | 0.63 | 1.32 | 0.95 | 0.63 | |
| M12 | 1.0 | 1.0 | 2.0 | 2.0 | 1.4 | 1.0 | 2.1 | 1.5 | 1.0 | |
| M14 | 1.2 | 1.2 | 2.4 | 2.4 | 1.68 | 1.2 | 2.52 | 1.8 | 1.2 | |
| M16 | 1.5 | 1.5 | 3.0 | 3.0 | 2.1 | 1.5 | 3.15 | 2.25 | 1.5 | |
| M18 | 2.0 | 2.0 | 4.0 | 4.0 | 2.8 | 2.0 | 4.2 | 3.0 | 2.0 | |
| M20 | 2.5 | 2.5 | 5.0 | 5.0 | 3.5 | 2.5 | 5.25 | 3.75 | 2.5 | |
| M24 | 4.0 | 4.0 | 8.0 | 8.0 | 5.6 | 4.0 | 8.4 | 6.0 | 4.0 | |
| M27 | 4.0 | 4.0 | 8.0 | 8.0 | 5.6 | 4.0 | 8.4 | 6.0 | 4.0 | |
| M30 | 5.0 | 5.0 | 10.0 | 10.0 | 7.0 | 5.0 | 10.5 | 7.5 | 5.0 | |

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MARKINGS

- Austlift (or AL): Manufacturer's mark
- CE: The eyebolt is designed to CE standard. It is compliance with 2006/42/EC (New machinery directive).
- WLL: Maximum load at vertical lifting position (within 90-degree range for single eyebolt).
- Batch number: As you can see on the product.
- Mxx: Metric diameter (e.g. M16)
- 12.9: The class of the bolt is 12.9 (This means the bolt can take 120kg per sq.mm and it will start failing at 90% of that load. This is the highest tensile in metric bolts equivalents around G90.)

USER INSTRUCTIONS

Ring working angle range:

You can adjust the eyebolts' lifting angle by positioning the eyebolt as per the diagrams below, do not exceed the angle over the bolt.



These eye bolts are not to be used leaning inwards as it will cause crushing and damage to the eyebolt.



USER INSTRUCTIONS

Inspection on eyebolts:

All liftings eyebolts shall have a regular inspection and it shall be recorded with following information.

- 1. Visual inspection for corrosion, crack and other deformations. Marking should be clearly visible.
- 2. Check threads worn by thread gauge for old eyebolts. The designed thread tolerance is 6g, worn threads will affect WLL.
- 3. The load to be lifted must not exceed the working load limit.
- 4. Check for excessive wear on the bearing area of the eye; it must not be used if the diameter of the bearing area has wear of ≥ 5%, compared to the original size.
- 5. After the eyebolt is fixed in object, check the eye movement to make sure it can rotate freely, and it can swivel in specified angle range.



Inspection on the object to be lifted:

The installation must be carried by a competent person. Eyebolts must be operated in compliance with the 2006/42/CE standard (new machinery directive) with following adjustments.

- 1. Check eyebolts' location to assure the load be evenly distributed to each eyebolt.
- 2. If the load is asymmetric, increase the eyebolt size or have engineer to design the lifting points if it is needed.
- 3. Check object material. The minimum depth of the threaded hole must be achieved. Factor of depth to diameter of the eyebolt is as following and a longer bolt is needed if the factor is over 1.
 - Steel/Stainless Steel 1
 - Cast iron 1.25
 - Aluminum alloy 2
 - · Aluminium magnesium alloy 2.5
- 4. The material of the object matched with the lifting eyebolt must have a tractive resistance equal or over the standard tractive resistance of steel in EN 10025 S235JR.
- 5. The thread must be perpendicular to the surface of the object being lifted.
- 6. Eyebolt should be tightened with a torque wrench as to the below chart.

| SIZE | M8 | M10 | M12 | M14 | M16 | M20 | M24 | M27 | M30 |
|------------------------------|-------|-------|--------|---------|---------|---------|---------|---------|---------|
| Tightening torque (Nm) | 25-30 | 55-60 | 95-100 | 110-120 | 140-150 | 390-400 | 750-760 | 750-760 | 750-760 |

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- 7. Make sure both joint area are clean, eyebolts cannot work on partially joined surface.
- 8. Fit the eyebolt on the lifting object, ensure that the ring is leaning in the same direction as the lifting slings.

A competent person must supervise and guide the lifting process, pay attention to the center of gravity and the position of the product to make sure that all eyebolts on the job are within the working load limit.

Major factors affecting lifting capacity:

| TEMPERATURE (°C) | WORKING LOAD REDUCTION FACTOR |
|---------------------|-------------------------------------|
| -20 ~ 200 | None |
| 200 ~ 30 | 10% |
| 300 ~ 350 | 25% |
| Above 350 | Do not use |

- Do not use the product in acidic or highly corrosive chemical environment or explosive environment.
- $\cdot\,$ Do not use the product at temperatures above 350 °C or below minus 20 °C.
- The product is intended for use by people who have received proper training and are competent.
- Do not modify the eyebolt with any other grade, quality or size bolt; otherwise, it will compromise this product's integrity.
- Do not replace the bolt and or modify the original fittings.
- Do not stand under hanging load to work with the product.
- During use, do not stand in hazardous areas. (Hazardous areas are those areas that are exposed to or under the moving load.)
- Do not make any alterations or do welding to the product without the manufacturer's prior written consent.
- Repair is permitted, provided that it is either done by Austlift or a competent Austlift dealer.

Storage: When not in use, store the product in appropriate environment. (dry, non-corrosive)

DECLARATION

We declare that all materials involved in this instruction manual are manufactured in compliance with machinery directive 2006/42/EC and the swivel is manufactured to AS2318 at proper testing procedure.

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