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Load ring

## 1. Lifting points "Load ring Z715/..."

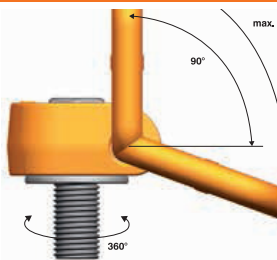
The lifting points are designed for use in accordance with these operating instructions and the respective national regulations governing the lifting and holding of loads. They may only be brought into operation after the instructions for use have been read and understood.

The instructions for use must be made available to the user until such time as the lifting points are taken out of service. The instructions are subject to a continuous improvement process and are only valid in their latest version.

They are available to download at [www.hasco.com](http://www.hasco.com).

Lifting method										
Number of legs	1	1	2	2	2	2	3+4	3+4	2	3+4
Angle of inclination	0°	90°	0°	90°	0°-45°	45°-60°	0°-45°	45°-60°	asymm.	asymm.

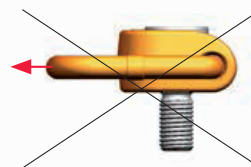
No.	Thread [mm]	Tightening torque [Nm]	Load capacity [kg]									
Z 715 / 8	M8	35	300	300	600	600	400	300	600	400	300	300
10	M10	70	630	630	1.250	1.250	850	630	1.300	900	630	630
12	M12	120	1.000	1.000	2.000	2.000	1.400	1.000	2.100	1.500	1.000	1.000
16	M16	150	1.500	1.500	3.000	3.000	2.100	1.500	3.100	2.200	1.500	1.500
20	M20	170	2.500	2.500	5.000	5.000	3.500	2.500	5.300	3.700	2.500	2.500
24	M24	400	4.000	4.000	8.000	8.000	5.600	4.000	8.400	6.000	4.000	4.000
30	M30	500	6.000	6.000	12.000	12.000	8.500	6.000	12.700	9.000	6.000	6.000



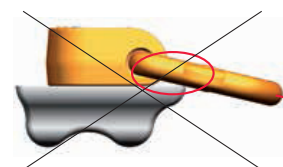
Picture 1: permitted



Picture 2: not permitted



Picture 3: permitted



Picture 4: not permitted

**Demanding conditions**

Temperature	below -40 °C	-40 °C to 100 °C	100 °C to 200 °C	200 °C to 250 °C	250 °C to 350 °C	above 350 °C
Load factor	not permitted	1	0,85	0,80	0,75	not permitted
Shock	slight shocks		medium shocks		strong shocks	
Load factor	1		0,7		not permitted	

\* use at temperatures below -40 °C and above 350 °C is forbidden!

**2. Intended use****Load**

The load capacity is as per the test certificate or load limit table in the specified directions of tension – see Fig. 1.

**Operating temperature**

-40 °C to 100 °C (note the reduction factors for higher temperatures).

**Impacts**

Impacts which occur through acceleration during raising and lowering, for example, do not need to be taken into consideration.

**Additional instructions**

The lifting points may only be mounted with the screw provided with them.

The body rotates through 360° and the ring is hinged.

Both are held in position by a spring and, prior to use, they must be aligned in a permitted direction of tension.

**3. Instructions for use**

- Lifting points are to be used only by competent, authorized personnel.
- A visual inspection must be performed before first usage (see maintenance instructions).
- Check for evidence of defects and the ease of movement prior to each use – lifting points must be readily rotatable and the hinge must move easily.
- Load only in the specified direction (see Fig. 1) with the load capacity as per the table.
- Pay attention to any load obstructions as per the restrictions on use.
- The inserted end attachment (e.g. hook) must be able to move freely within the ring (see Fig. 2).
- The lifting points must be kept clean and dry.

**Please note:**

- Do not overload lifting points. A falling load can cause injury and/or death.
- Damaged lifting points (see maintenance instructions) can fail under normal operating conditions – the load may fall. These lifting points must not be used.

**4. Restrictions on use****Under abnormal operating conditions (see above), lifting points can only be used with limitations.**

- Lifting points must not be exposed to acids and alkalis or their vapours.  
Please contact our technical service regarding use in environments containing chemicals.
- The lifting points must not be loaded via corners or edges etc.
- The lifting points may not be rotated under load.
- People must not be lifted.
- Do not choke hitch.
- If the load distribution is asymmetrical (the individual legs of the lifting gear have different angles of inclination), only count one leg as load-bearing (see load capacity table).

**5. Mounting instructions**

- Installation may only be carried out by a competent person.
- The overall system on which the lifting points are mounted must meet the requirements of Directive 2006/42/EC.
- Select the arrangement of the lifting points to ensure symmetric loading, with the centre of gravity beneath the lifting point(s).
- The base material of the object, on which the lifting points are to be mounted, must be sufficiently strong to absorb the induced forces without deformation.
- Lifting points with a sufficient load capacity must be selected - see load capacity table.
- The screw-on surface must be flat and be at least the diameter of the supporting surface of the lifting point. The threaded hole must be in the centre of the surface, at right angles to it and sufficiently deep for the screw to be fully screwed in, making full contact with the bearing surface (blind holes).
- The minimum screw-in length is as follows:  
1 x M in steel (M = thread size e.g. M20 = 20 mm), 1.25 x M in cast steel, 2 x M in aluminium
- The threaded hole must be cleaned prior to insertion of the screw.

- For a once-only lifting process, hand-tighten the screw with an appropriate tool. If the lifting point is to remain permanently on the load, the screw must be mounted with the specified tightening torque – see Table.
- If necessary (e.g. in the event of vibrations), use a liquid thread-locking agent, observing the manufacturer's instructions.
- Prior to each use, make sure that the lifting point is fully screwed in and the support surface is in full contact with the load.
- When selecting the configuration, make sure that no incorrect loading can result., e.g. if:
  - free alignment is not possible in the direction of tension
  - the direction of tension is not within the specified range as per Fig. 1
  - the link is touching edges or surfaces as per Fig. 4
- Only original screws may be used – recognisable from the stamped marking (load capacity, thread).
- No changes may be made to the delivered item. It is not permitted, for example, to perform welding, heat treatment or other surface treatments that damage the material (e.g. galvanic zinc coating).
- Only mount defect-free lifting points.
- Check used lifting points prior to installation as per the maintenance instructions.
- After mounting, lifting points must be readily rotatable and the hinge must move easily.

## 6. Maintenance, checks

- Lifting points must be checked at least once a year by a competent person.  
The time period may be shorter depending on the operating conditions. For frequent use, we recommend carrying out a crack test every two years. The screw must be removed from the body when doing this.
- The parts must be free from oil, dirt and rust for the regular inspection and crack test. Suitable cleaning methods are those that do not overheat, do not conceal surface defects and do not cause hydrogen embrittlement or stress corrosion cracking.
- During inspections, all components that influence safety and function must be checked for damage.  
e.g.:
  - fracture, notches, cracks, deformation
  - noticeable signs of excessive heat
  - abrasion or corrosion of more than 10% of the cross section

**If there is any doubt as to the function and/or safety of the lifting point, it is essential to stop using it.**

## 7. EC Declaration of Conformity (No.: Lastaufnahmemittel\_EN\_EG-2019-04)

This declaration of conformity is issued under the sole responsibility of:

**HASCO Hasenclever GmbH + Co KG, Römerweg 4, D-58513 Lüdenscheid, +49 2351 957-0, info@hasco.com**

### Object of the declaration:

References to the relevant harmonised standards are taken as a basis or references to the specifications for which conformity is declared: Reference number of the standard

No.	EN ISO 12100	EN 1677-1	DIN 580	DIN 582	DGUV 100-500 (BGR 500, 2.8)
Z70/..., Z701/...	X				
Z710/...	X		X		X
Z711/...	X	X			X
Z7120/...	X			X	X
Z715/...	X	X			
Z721/...	X				
Z725/...	X	X			

The object of the declaration described above complies with the relevant Community harmonisation legislation: 2006/42/EG

Name and address of the person authorised to compile the technical documentation:

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Lüdenscheid, 2019-04-08  
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