

# KK-100 Thimble Clamp Mounting Instruction

EN

## Use

IronGrip's Thimble Clamp KK-100 can be used with all types of lifting devices and suspended loads. The thimble clamp is designed for use with steel rope with steel or fibre cores for general applications up to and including strength grade 1770 N/mm<sup>2</sup> and 1960 N/mm<sup>2</sup> according to table below.

It is not suitable to use plastic-coated wire ropes for lifting applications with IronGrip's thimble clamp.

## Limitations and requirements

When used in lifting applications, one thimble clamp per fastening must be fitted in accordance with these instructions. In some cases an extra wire clamp is required. See table below. KK-100 can be used with steel ropes for general lifting purposes up to and including strength grade 1960 N/mm<sup>2</sup>. The recommendation is to use wire ropes with fibre cores, as these are easier to bend and therefore easier to install. However, wire ropes with steel cores can also be used.

Note that lifting applications refer to both static lifting (suspended load) and dynamic lifting.

## Standards

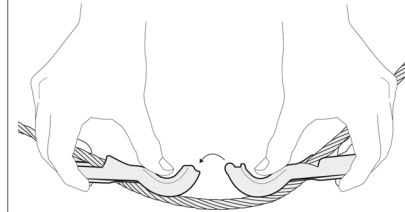
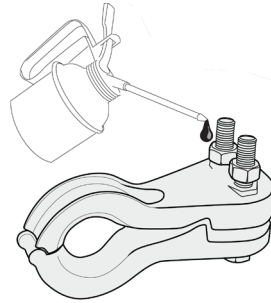
The standard EN 13411-3 for ferrules has been used for approval of IronGrip's KK-100 thimble clamp for lifting applications. IronGrip's KK-100 thimble clamp has been tested according to the same standards and has shown to conform to the requirements for ferrules, provided that the thimble clamp is installed according to these instructions.

| Thimble clamp | Wire rope diameter (mm) | Weight (kg/100) | Torque (Nm) | Wrench size (mm) | No. of extra wire clamps for bracing | No. of extra wire clamps for lifting (1770 N/mm <sup>2</sup> ) | No. of extra wire clamps for lifting (1960 N/mm <sup>2</sup> ) |
|---------------|-------------------------|-----------------|-------------|------------------|--------------------------------------|--|--|
| KK-600        | 5-6                     | 16              | 9,5         | 10               | 0                                    | 0  | 0  |
| KK-900        | 7-9,5                   | 48              | 22          | 13               | 0                                    | 0  | 0  |
| KK-1200       | 10-12,5                 | 102             | 44          | 16               | 0                                    | 0  | 1  |
| KK-1600       | 13-16,5                 | 197             | 181         | 21               | 0                                    | 0  | 1  |

## WARNING

- Failure to comply with the directions given in these mounting instructions may result in serious consequences with the risk of injury.
- Read the instructions carefully before starting mounting.
- Use a torque wrench when tightening to produce the right tension in the thimble clamp.
- Always oil the bolt threads before tightening. Failure to oil the threads will result in the specified torque not giving the right tension.
- Test load the application with the maximum permitted force. Then check the tightening torque again.
- Inspect the fastening regularly.

1. Make sure the wire rope and thimble clamp are undamaged and that the threads are clean and oiled. Oiling of the threads is especially important for lifting applications so that the right tension force in the bolts is reached.



2. Unscrew the nuts and remove the bolts from the thimble clamp. Thread the wire rope through both halves, as illustrated.

3. Move the clamp halves towards each other to form a hinge that can be folded up. Make sure a sufficiently long free wire rope end (see below) protrudes.

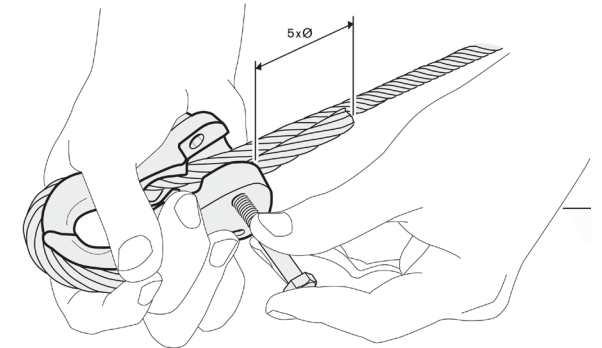


4. Hold the wire rope against each clamp half and fold together the thimble clamp. If it is difficult to stop the wire rope from sliding, you can wrap a steel wire around the wire rope where it protrudes from the clamp half. The steel wire acts as a support when folding together the thimble clamp.

5. Shut the thimble clamp and insert the bolts. Make sure that the bolts are inserted into the half with countersunk recesses for the bolt heads. Fit the nuts and tighten. You can also use a steel wire here, if it is difficult to hold together the thimble clamp halves if the wire rope is thick and offers resistance. Wind then a steel wire around the two wire ropes when the bolts are inserted.

6. Make sure the thimble clamp sits as straight and symmetrical on the wire rope as possible.

7. The distance between thimble clamp and the free end must be at least 5 times the wire rope diameter.



8. Tighten the nuts crosswise. NOTE! Use a torque wrench! Tighten until the correct tightening torque is reached. If required apply a supplementary wire clamp according to instructions.

