

**Teacher**  
London Penland

**Subject**  
Metric Fastener  
Standards Comparison

**Date**  
2/5/20

## Comparing Socket Head Cap Screws DIN 912 to ISO 4762

### Objective:

- Viewers will learn the DIN/ISO standardization differences between the DIN 912 socket head cap screw and the ISO 4762 socket head cap screw.

### Essential Questions:

- Are there any differences in the standardizations of the socket head cap screw?

### Standards:

- DIN 912 -> ISO 4762
- ISO 12474

### Lesson Plan:

#### Engage (30 sec)

- Welcome back to Eurolink's Metric Fastener Standards Comparison VLOG series! This is episode 12 and today we are going to dig into socket head cap screws.
- Today, Feb. 12th, is a special day... because it is the day that I was born (in addition to Abraham Lincoln, Charles Darwin and, of course, Gucci Mane)!
- Doesn't it feel like I've done this video before? I swear I thought I had actually taught on DIN 912, to the point that I have double checked and triple checked my own VLOG before actually typing up the lesson plan for this one, because it felt so much like "of course I've done a video on DIN 912 and ISO 4762."
- I actually realized I hadn't when I got an email from a customer just this past week asking that we offer only the ISO 4762 because their customer is stickler for those kinds of things. Emails like that are a part of the reason I started this VLOG series, so I could kindly send them a response with an educational video on the subject. So, I went to look for it to post the link in my email and it wasn't there!
- So, I guess let's do this... it's another pretty simple one.

#### Explain (2 min)

- First of all, DIN 912 and ISO 4762 are both socket head cap screws and they are dimensionally identical. They are considered fully interchangeable, so let me say this clearly: they are the same thing. The end.
- But no seriously, it actually gets kind of interesting because they actually did make some very useful adjustments to the ISO standard.
- You may be wondering, well didn't you say they are the same thing? Yes, yes I did, if you are comparing the same size that is, but ISO 4762 did change the nominal size range specified in the standard, starting at M1.6, rather than M1.4 and since the DIN standard has been formally withdrawn, that M1.4 size is actually a bit more difficult to source, as several major stocking distributors have stopped stocking the M1.4 DIN 912. I think I've only ever seen this be an issue maybe once or twice for relatively small quantities, therefore it makes sense as to why they cut it from an economical standpoint. I'm sure they've got their engineering reasons as well.
- On the other end of the range, unlike the DIN standard which went up to a M100 diameter, the ISO standard only goes up to the M64 diameter.
- Also, the ISO standard does cut out some of the 2nd and 3rd preference class diameters, with the exception of M14. (I guess there was enough demand for the M14 that it made the cut?)
- All that said, an M10 X 50 DIN 912 is going to be equivalent to a M10 X 50 ISO 4762.
- The other, quite neat difference, is that they added a fine thread standard to the ISO.
- Whereas DIN 912 did not have its own fine thread standard (like how DIN 933 has DIN 961), the ISO standard does. The fine thread equivalent to ISO 4762 is ISO 12474.
- So, if you are looking for a fine thread socket head cap screw, then you've actually got a specific standard for that now, ISO 12474.

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**Extend (30 sec)**

- So, that's it for today!
- As a review
  - DIN 912 and ISO 4762 are equivalent standards, with the only difference in the standards themselves being that some nominal sizes were cut and that a fine thread standard (ISO 12474) was created.
- As always, please feel free to send any questions, comments, or (of course) requests for quotes to me at [london@eurolinkfss.com](mailto:london@eurolinkfss.com) or your respective inside sales rep and check out our website [eurolinkfss.com/vlog](https://eurolinkfss.com/vlog) for all of our metric fastener comparison videos!
- See you guys next time!