

Teacher
London Penland

Subject
Metric Fastener
Standards Comparison

Date
4/26/21

Comparing Parallel Pins - DIN 7 to ISO 2338

Objective:

- Viewers will review the differences between the DIN and ISO parallel pins

Essential Questions:

- Are there any actual differences between the DIN and ISO parallel pins?

Standards:

- DIN 7 -> ISO 2338
- DIN 6325 -> ISO 8734

Lesson Plan:

Engage (30 sec)

- Sourcing pins can be a bit tough sometimes. Much of that difficulty constitutes determining if one standard matches another. Have you ever had an issue with this?
- I'm willing to bet that you may have, considering that all of the DIN standards for parallel and taper pins have been withdrawn and replaced with ISO and/or EN standards.
- Furthermore, the interchangeability between these standards is technically considered limited.
- So what does this "limited interchangeability" mean and how does it affect sourcing?
- Well let's dive into that today with episode 17 on parallel pins!

Explain (2 min)

- First of all, according to Wurth's "Fasteners: Differences between DIN-EN-ISO Standards" (which is a good resource by the way), the changes can be categorized into three things: "Nominal length redefined", "heights of the ends changed", and "hardness range for steel defined"
- You may immediately jump to thinking, "hey, if the lengths have been change and the heights of the ends have been changed, then they must be different and not interchangeable"...
- Well, it's not quite that simple, notice the statement, the nominal length has been redefined. The real length of the fastener may or may not be different, it's not that they were actually changed in that regard, it means that the way that the fastener is identified has been redefined.
- In this case, whereas the ends of say DIN 7 were not included in the nominal length according to the DIN 7 standard, in the ISO 2338 standard the head is included in that nominal length, yet for the most part, DIN 7 can be substituted for ISO 2338.
- This would be like me saying that my dog is 3 ft. long, but I didn't include the tail before, so now my dog is 4 ft. long... did the dog change size? No. But did the definition of the length for my dog change? Yes.
- The main difference between the two is that "heights of the ends changed"
 - The DIN 7 had rounded ends, whereas ISO 2338 has flat ends.
 - This is mostly why they are considered to have limited interchangeability.
 - How limited the interchangeability is, is not noted in the resource.
 - Essentially, they are interchangeable with very few exceptions, exceptions existing only if the difference in head affects the application, but it is expected that very few applications of this fastener would be affected by the difference in head, so I would say they are "mostly interchangeable".
- Lastly, the hardnesses for steel and stainless steel were defined.
- Note that the pin itself is still considered unhardened, it's just that the range for acceptable hardness was clarified at 125HV to 245HV for steel and 210 HV to 280HV for stainless steel.

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Extend (30 sec)

- That's it for today!
- As a review:
 - Nominal lengths were redefined meaning that the measurement points for lengths have changed
 - Head heights changed, because DIN 7 had rounded ends, whereas ISO 2338 has flat ends – giving it our “mostly interchangeable” status
 - Hardness was defined, the pins are still unhardened, but the standard has just defined an acceptable hardness range.
- As always, if you have any comments, questions or concerns or would like to request a quote for these items or any other hard to find metric fasteners, feel free to contact me directly at london@eurolinkfss.com, or give us a call at (864) 801-0505.
- Thank you and continue to stay safe out there!