

Proper Wire Duct Layout

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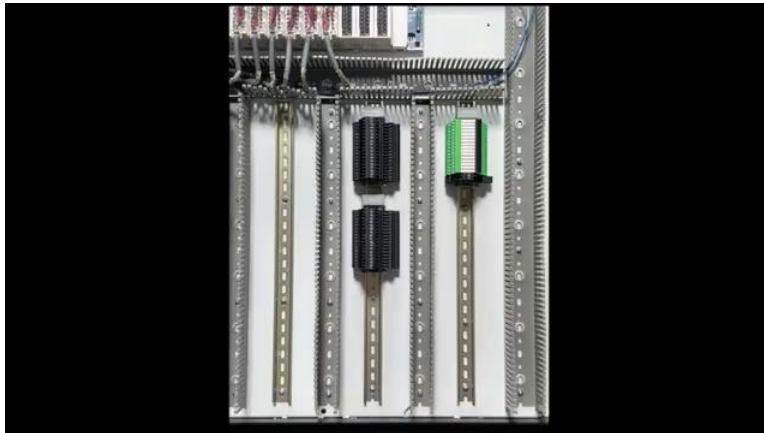
[0m:4s] Hi, I'm Josh Bloom. Welcome to another video in the RSP Supply Education series. If you find that these videos are helpful to you, it certainly helps us out if you could give us a big thumbs up and subscribe to our channel. In today's video, we are going to be looking at something that is often overlooked when fabricating an industrial control panel. I am referring to the proper planning and layout of the wire duct on a control panel. For the purpose of this video, we're going to talk about why this is often sometimes overlooked and also discuss why it is so important to make sure that proper planning occurs upfront to ensure that no issues arise later on. We will talk about some best practices and some of the do's and don'ts when planning and installing wire ducting in a control panel or other electrical applications. As always, the information shared in this video is intended to provide only a basic overview of this topic,

[1m:1s] and should never take the place of proper electrical instruction. With that being said, let's take a closer look at some of the things that need to be considered when installing wire ducting in a control panel. So, why is proper wire duct installation important at all?

[1m:18s] Speaking from personal experience, I can tell you that improper planning and poor implementation of wire duct installation can lead to all kinds of problems, both when fabricating a control panel in a shop environment, and more importantly, when the panel is in the field and work is being performed. One of the reasons that this is often overlooked in design and planning stages is because the wire ducting itself has nothing to do with the electrical function of the system in the panel.



[1m:48s] So, it is common to see people overlooked wire duct planning and instead focus on the electrical hardware in the panel and how it will function. So in the end, you get a well functioning electrical system that is also a huge mess because the wire ducting is installed in the wrong places, or there is not enough, or too much. The point is that time should be taken during the panel design phase to ensure that the wire duct will be sufficient for the application that it is intended to be used in. So, what things need to be considered when planning for your wire duct layout?

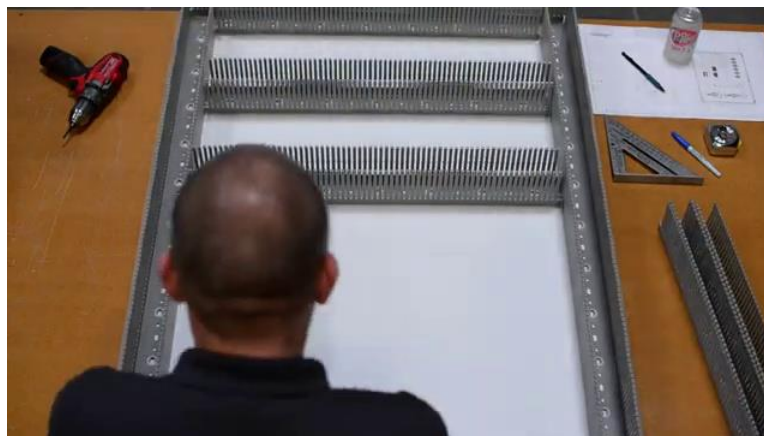


[2m:28s] There are two or three main things that need to be considered.

[2m:31s] First, is to look at the hardware in the panel and determine where the wires will interface with that hardware. It does not make much sense to place wire ducting above a piece of hardware when all the wires will be connected to the hardware from the bottom. So, take time to make sure you know what hardware is being used and how the wires will interface with it.

[2m:55s] Then, look at how much wire is needed to terminate the various connections within the panel. Once you get a sense of the amount of wiring that is needed, you can start to size your wire ducting accordingly. However,

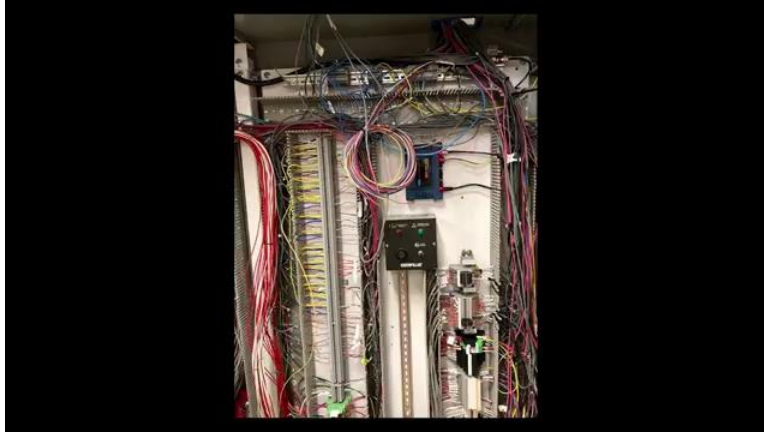
[3m:9s] before you select the final wire duct size and placement in the panel, one more thing should be taken into account, and this is the most often overlooked aspect of proper wire duct planning.





[3m:23s] It is imperative that you account for the wires that will be installed once the panel is located in the field.

[3m:30s] Too often, panel manufacturers provide a panel that looks great from the factory only to find out that they did not allow for enough space and proper layout on the panel to account for field wiring to occur.



[3m:45s] In these situations, the panel looks good when they arrive on site, but once all of the fill wires are installed, it looks like a complete mess. This is because of improper planning. Always make sure to not only account for the wiring that will occur in the shop, but also in the field. You need to communicate with contractors and electricians who will be working on the panel to determine where the wire will be coming from once it's installed, and also determine a plan for running and terminating those wires. Armed with this information, you can properly size and lay out the wire ducting for your specific panel.

[4m:24s] At this point, you may determine that the panel needs to increase in size in order to accommodate the amount of wire ducting that is actually needed. Whatever the situation is, always, make sure to take time to plan accordingly. By following some of these simple guidelines, you can ensure that your panel will have enough room to accommodate all of the wire that will be installed into the panel, both in the panel shop and out on site. For a full line of wire ducting as well as thousands of other products, please go to our website. For more information or other educational videos, go to RSPSupply.com, the Internet's top source for industrial hardware. Also, don't forget, like and subscribe.

