Why Steel Conduit is the Long-Lasting Solution for High-Performance Buildings

Methods used in building construction influence the time, energy, and efforts needed to maintain the facility as well as the ability to address requirements to modify and reconfigure the building as occupancy and use can change over time. Modern, high-performance buildings require materials that are resilient, flexible, and long-lasting to protect sophisticated and sensitive communications systems.

Steel electrical conduit products including rigid metal conduit (RMC), intermediate metal conduit (IMC), and electrical metallic tubing (EMT) are all used in U.S. wiring systems. They are designed to protect and route electrical conductors and cables and can also be used as an equipment-grounding conductor in some instances.

Due to its recognition by the National Electric Code (NEC) ®, these products are used in many applications such as commercial, residential, and industrial locations, both indoors, outdoors, and even underground.

Building developers commonly use this material in their projects for its ability to withstand high temperatures, ability to limit electromagnetic interference, and its recyclability.

Additionally, life expectancy is an essential factor to consider when choosing wiring methods for buildings. For example, corrosion is inevitable, but it can be controlled. The performance of steel conduit in different environments is determined by a variety of things: dust, harsh chemicals, pH, temperature, and more. Adherence to Standards and NEC requirements ensures protection against corrosion.

Moreover, while life-cycle tests are not typically required within many product Standards, there are performance requirements for the coatings used – zinc being the most commonly used as it ensures the steel is protected from rust by forming a barrier between the steel and outside environment. To read more about zinc's effect on steel conduit, read NEMA's white paper.

Steel conduit contributes to physical properties and lifecycle cost advantages. The use of this product in high-performance buildings ensures that if a circuit has to be changed, it is easy to replace the conductors while keeping the conduit intact. Over the lifespan of a facility, this sustainable characteristic of steel conduits permits excellent flexibility and reduces renovation or replacements costs.

U.S. manufacturers of steel conduit are members of the National Electrical Manufacturers Association 5RN Product Section. To learn more visit their product page.