



Aluminum and other Combustible Metals

Aluminum dust is highly explosive. Rocket fuel is made of aluminum. NFPA used to have a standard dedicated just to aluminum. NFPA 651: Standard for the Machining and Finishing of Aluminum and the Production and Handling Aluminum Products, which covered the hazards of ignition and explosions in the manufacture of light metal flake powder or paste and atomized light metal granules, or dust of any light metal alloy that is explosive in an environmental atmosphere.

However there are other combustible metals and in 2002 NFPA 651 was incorporated in NFPA 484. NFPA 484: Standard for Combustible Metals updates the safety requirements for any metal that is considered a combustible metal, including aluminum, lithium, magnesium, niobium, tantalum, titanium, and zirconium. NFPA 484 also includes requirements for the production, processing, finishing, handling, storage and use of all metals and alloys that are in a form capable of combustion or explosion. For more information specifically on Aluminum refer to Chapter 6, in NFPA 484. There are specific statements on ductwork in section 6.1.9.8 confirming ducts **“shall be constructed of nonferrous spark resistant metal”** and “plastics or other nonconductive ducts ... shall not be used.” These statements eliminate galvanized steel as an option as galvanized steel is NOT spark resistant. Additionally, Chapter 12, in NFPA 484, section 12.2.5.8 states **“Duct seams shall be oriented in a direction away from personnel.”** This statement eliminates spiral duct as an option due to the nature of the spiral manufacturing process.

Many states and localities have codes and regulations (enforced by AHJ (Authorities Having Jurisdiction)) governing sales, construction, installation and or use of Products for certain purposes, which may vary from those in neighboring areas. While Air Handling Systems by Manufacturers Service Co., Inc. attempts to assure that its Products comply with such codes, it cannot guarantee compliance, and cannot be responsible for how the Product is installed or used. Before purchase and use of a Product, please review the Product application, national & local codes, regulations, and be sure that the Product, installation, and use will be in compliance.

Due to market changes and fluctuations beyond our control, specifications and pricing subject to change without notice. Buyers subject to terms and conditions of sale. Many states and localities have codes and regulations governing sales, construction, installation and or use of Products for certain purposes, which may vary from those in neighboring areas. While Air Handling Systems by Manufacturers Service Co., Inc. attempts to assure that its Products comply with such codes, it cannot guarantee compliance, and cannot be responsible for how the Product is installed or used. Before purchase and use of a Product, please review the Product application, national & local codes, regulations, and be sure that the Product, installation, and use will be in compliance. Copyright Air Handling Systems.