

**Spark and corrosion resistant equipment: The S•COR•E series product line is intended to provide improved levels of corrosion and spark-resistant protection for manual, pneumatic and electric powered hoists and trolleys, with capacities available from 1/2 to 50 tons.**

The S•COR•E series of options provides for improved protection, durability and performance for hoist operations in corrosive or harsh environments.

It is generally accepted that rusty, and/or corroded steel is more likely to generate sparks than if free from corrosion or rust. Therefore, any improvement in corrosion or rust-resistance results in improved spark-resistance.

A spark of sufficient heat to ignite the surrounding atmosphere generally is unlikely in mechanical hoisting equipment, but it may potentially be generated by friction during operation or unintentional impact of a hoist or trolley with other metal components. In order to provide the user with corrosion and spark-resistance protection,

IR offers different levels of protection from which you can select to fit your particular needs.

**The user is cautioned to check carefully the local and/or national standards, codes, etc. which may affect the selection and use of equipment in the intended environment.**

**Nickel diffused load chain<sup>(1)</sup> – designed specifically for corrosive and potentially harsh environments.**

The manufacturer of the nickel-diffused chain advises us that compared with steel, stainless steel, alloy steel, and copper steel, (under like test conditions) ND chain produced fewer sparks. ND chain is our selection for use on S•COR•E products in the sizes available versus stainless steel, because the ND chain does not lose strength

during the nickel-diffusing process. Additionally, the ND chain has a harder surface and greater corrosion and flaking resistance than the softer chains.

Eventually, both ND chain and most stainless steel chains will have corrosion and, perhaps, some rust. The user should therefore regularly examine the load chain for the appearance of corrosion and rust, which indicates the termination of its spark resistant life, and the chain should be replaced immediately.

**Copper plating, zinc plating, solid bronze**

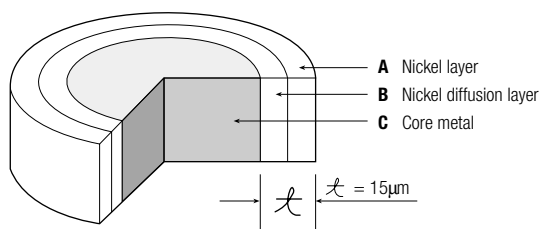
Various institutes and standards organizations have studied the corrosion and spark-resistant nature of metals. Most manufacturers, including IR, will offer products that are resistant to corrosion and sparking, but are not to be considered spark-proof. This is essentially because most metals, including zinc, bronze, and stainless steel, will spark from the application of sufficient striking force and energy.

S•COR•E series products use plated or solid, non-ferrous metals to provide "spark-resistance" by reducing the likelihood of corrosion and sparking, and also the temperature of the spark, if one should occur.

Ultimately, the selection of the correct corrosion and spark-resistant features is the responsibility of the customer.

**Plated and "solid bronze" hoist and trolley components**

Third party research provides overwhelming evidence that non-ferrous metals and substances offer excellent anti-sparking characteristics. Their use meets or exceeds all known requirements for protection against spark generation in a hydrocarbon environment.



Nickel diffused load chain

Please note; National Electric Code [NEC] and the National Electrical Manufacturers Association [NEMA] have established classes and divisions of hazardous environments for electrical components and equipment. The NEC and NEMA standards do not apply to the mechanical properties of equipment that electric motors may be mounted on.)

**Warning:** Before installation see maintenance and operations manual for additional warnings and precautions. This equipment is not to be used for lifting, supporting or transporting people, or lifting or supporting loads over people.

(1) Nickel diffused load chain is only available on Ingersoll-Rand manual chain hoist products.