For over 100 years, Shaw-Box cranes and hoists have set industry standards for performance and durability. Using state-of-the-art technology, they have met the most rigorous industry demands. The same commitment to excellence that made Shaw-Box an industry leader is evident in our materials handling equipment for critical applications in hazardous environments.

All Shaw-Box products are designed and built to rigid design and manufacturing standards. Our crane components and hoists meet or exceed the requirements of article 500 of the National Electrical Code. Shaw-Box also produces hoists and crane components in a wide range of capacities and lifts for duty in more demanding conditions. These components are specially designed to work safely and efficiently in the most hazardous environments.

Only the finest parts and materials are used to provide the maximum in safety, quality, and ease of maintenance. Explosive environments are safer with Shaw-Box explosion proof motors, brakes, and electrical components, including fittings, seals, enclosures, and limit switches. Shaw-Box also makes intrinsically safe electrical components which operate at voltages too low to cause ignition. Shaw-Box provides the industry’s finest spark-resistant components, including stainless steel wire rope, solid manganese bronze or stamped beryllium copper wheels, duranize bronze hooks and lower block bodies constructed entirely from solid bronze plate.

Shaw-Box explosion proof and spark resistant hoists and crane components have been industry tested and proven in hazardous environments around the world. They are designed to meet the requirements for these applications as defined by the National Electrical Code for: Class 1, Groups C & D, Division 1 and 2 and Class II, Groups E, F & G, Division 1 and 2 environments.

**Explosion Proof Electrical Components**

- **Nema 799 Control Enclosures**
  - Nema control enclosures are designed to reduce or eliminate the risk of explosion in hazardous environments.
  - Nema 7 enclosures prevent ignition of gas external to the enclosure by containing the explosion within the panel. Nema 9 enclosures are sealed to prevent an explosion by excluding the entry of explosive amounts of hazardous dust.

- **Explosion or Dust Ignite Proof Motors**
  - Explode proof motors and fans perform in the same way as Nema 7 sealed enclosures, preventing the ignition of external gas by containing the explosion within the motor and fans. Dust-ignite proof motors prevent ignition of the dust in the atmosphere, or which has built up on the motor and fans, by creating a compartment inside the motor which prevents the dust from igniting.

- **Explosion Proof Limit Switch Enclosures**
  - Unprotected limit switches can also face an explosion risk in hazardous environments. Explosion proof and dust ignition proof gear or block type limit switches are provided for Nema 7, 9, and 9T equipment. Illustrated is a Nema 7 guarded limit switch enclosure.

- **Nema 799 Pendant Stations**
  - Nema 799 pendant stations are standard components in explosion proof enclosures to prevent ignition of explosive materials inside the pendant station. The enclosures prevent ignitable dust from igniting in, and contains any explosion.

- **Intrinsically Safe Controls & Products**
  - Intrinsically safe systems range a motion controller with electrical components operating at voltages too low to cause ignition of gases or dust. While the motors control must be housed in a Nema 7 or 9 enclosure, the pendant station can be a standard, lighter, standard enclosure (so shown) reducing operator fatigue and permitting easier operation of the equipment.

**Spark Resistant Mechanical Components**

- **Stainless Steel Wire Ropes**
  - For hazardous applications that require spark resistant features, the hoists are wound with stainless wire rope instead of the standard phosphor bronze. Stainless steel wire reduces the possibility of sparking when making contact with the rope drum, sheaves, or external objects with which it may come in contact.

- **Bronze Hooks & Lemon Blocks**
  - Solid, cast bronze hooks reduce the possibility of sparking when in contact with the hooks or ladder and various overhead and fixed objects. Hooks are provided with stainless steel, spring-loaded safety latches as a standard feature. The bronze lemon block is fabricated from solid bronze plate.
  - Solid bronze is used instead of standard and because casting creates a chip or wear-off — solid bronze does not.

- **Bronze Trolley Wheels**
  - Trolley wheels manufactured from manganese bronze reduce the possibility of sparking when in contact with steel rails, bridge or runway beams, or drive pinions, thereby also reducing the possibility of igniting the hazardous atmosphere. Illustrated are wheels for under-running monorail hoists.

- **Bronze Bridge Wheels**
  - (Up or under-running bridge crane wheels are manufactured from manganese bronze for spark resistant requirements. Bridge wheels contacting a steel rail, runway beam or drive pinion reduces the possibility of igniting the hazardous atmosphere. Illustrated are wheels and pictures for under-running bridge cranes.)

- **Air Operated Hoists**
  - Air operated hoists are ideal for hazardous environments. Air power eliminates electric motors and control and the sparking and arcing associated with them. A pneumatically operated hoist provides variable speed control for precise spotting. Illustrated is an air-powered motor driven 750 cwt. hoist.)