Liquid Caustic Soda Temperature Maintenance

Prevent freezing and increase efficiency of liquid caustic soda in pipes and tanks

Application

Liquid caustic soda, also called sodium hydroxide or lye, is a highly corrosive material used as a catalyst or cleaner in many industries such as petroleum refining, textiles, pulp and paper, and chemical processing. A 50% concentration by weight is the most commonly used and to prevent freezing, this material must be maintained at a temperature above 70°F (21°C). Failure to properly maintain temperature leads to decreased efficiency, clogging, and production downtime.

Solution

For liquid caustic soda pipelines, BriskHeat KE series constant-wattage heating cable installed along the pipe will keep the solution at the desired temperature as it is passing through. The KE series has a FEP extruded outer jacket that protects the cable from the corrosive nature of sodium hydroxide. The cable is FM approved for both ordinary and hazardous environments.

For tank heating applications, BriskHeat SRL silicone rubber heating blankets are used because of the ease of installation and temperature uniformity they provide. These heating blankets come in large and small sizes to properly fit around the tank and can be easily installed with an industrial-strength adhesive backing. For many tank heating applications, constant-watt heating cable can also be used.

For either type of heater, we provide a heat-loss calculation and recommend the right amount of heat needed. Both style of heaters need to be controlled by some form of temperature controlling device. BriskHeat offers a wide range of temperature control options to fit your specific application. A good all-purpose choice is our TC4X digital temperature controller with NEMA 4X enclosure. The TC4X is inexpensive, has a digital display, and is suitable for wet and corrosive environments.

BriskHeat offers a wide range of heating, insulating, and temperature control options to ensure your operation runs smoothly.

Additional Uses

BriskHeat’s constant wattage heating cable can be used on most long-run pipe heating applications that require heat tracing. Similarly, silicone heating blankets can be used on most tanks or vessel applications requiring heat.

Industries

• Chemical Processing
• General Manufacturing
• Petrochemical
• Oil & Gas
• Pulp & Paper
• Textiles

Types of Users

• Facilities Maintenance Personnel
• Process Engineer
• Production Manager

For examples of customers, see Customer Reference section (page A) in the Application Book.