

Tank Heaters

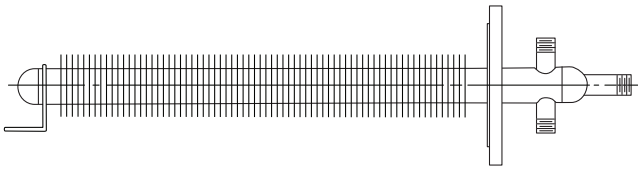
Armstrong



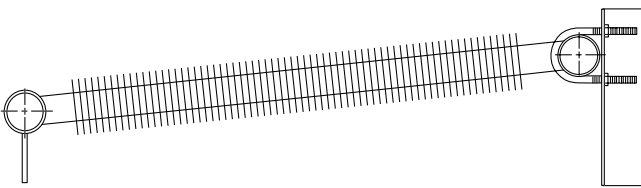
Armstrong[®]

Intelligent System Solutions[™]

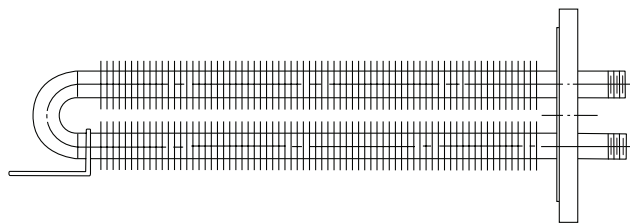
STEAM • AIR • HOT WATER



Flange Mounted Bayonet Type FBC and FBS



Base Mounted Direct Type BD



Flange Mounted Hairpin Type FHC and FHS

Application Flexibility

Four types of tank heaters are offered in several materials and sizes to suit your specific requirements.

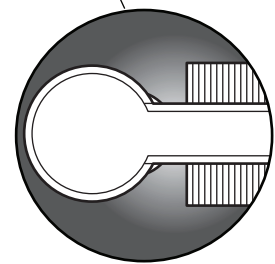
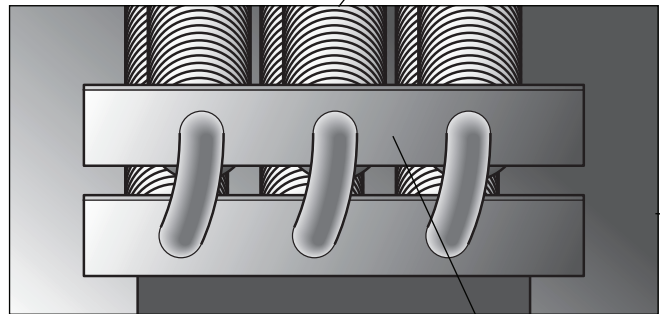
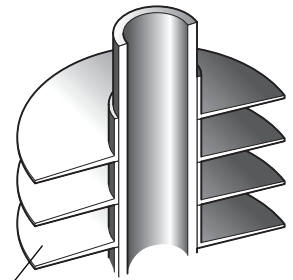
Space Savings

Flange mounted heaters are installed on various standard manhole sizes. You save internal space because only the heating element itself is inside. Steam and condensate connections are outside of the tank.

Heat Transfer Efficiency

Stiff, helically wound L fin design for an efficient and long-lasting heat transfer surface.

Vertical fin surface provides uniform heating of liquid with a minimum of coking due to hot spots.



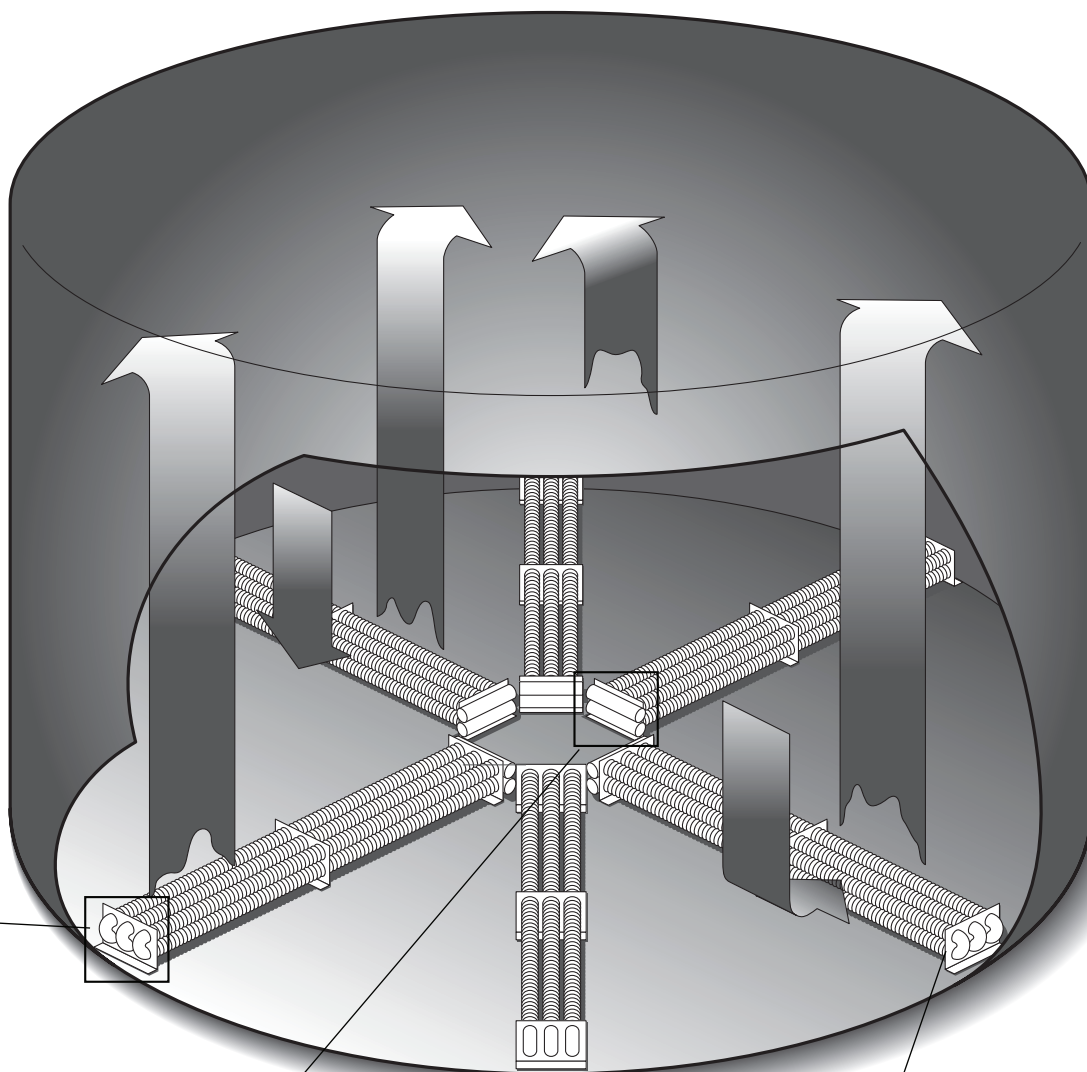
Durability Over Long Life

Pipes and headers are of heavy construction (minimum Sch. 40 pipe for steel). Greater thickness means a stronger, more corrosion-resistant design that lasts longer.

Corrosion Resistance

Pipes, headers and connections are welded together for a tough, single material joint. Eliminating dissimilar materials precludes galvanic corrosion, thereby lengthening service life.

Base Mounted
Hairpin Types
BHC and BHS
Shown

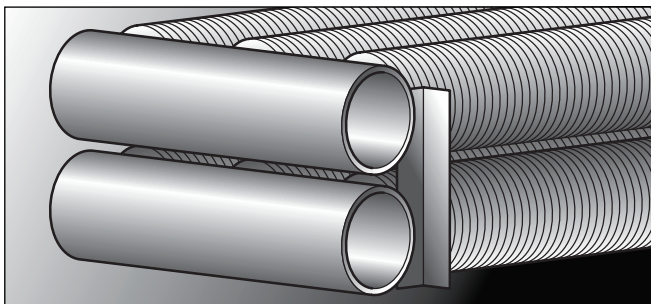


Unit & Tank Heaters

Fast, Direct Connection

Heaters are ready for connection to the steam and condensate systems as supplied. Numerous types of connections are available.

Base mounted heaters come with supports to allow for a proper distance between the tank bottom and the heating surface. This also helps to minimize the need for internal welding. Longer units are provided with mid-support members to further minimize inside welding and ensure rigid footing.



Minimum Installation Welding

Armstrong base-mounted tank heaters are installed and removed easily through manholes, eliminating the need for time-consuming welding inside the tank.

Armstrong tank heaters are built to withstand the rigorous demands encountered in industrial installations. The heavy-duty features of our units were developed in response to a need for tank heaters that could provide efficient heat transfer without sacrificing structural integrity. These features include heavy-wall pipes and headers, thick L footed fins and all welded construction. In addition, the mono-metallic construction of our units precludes galvanic corrosion, and the finned surface is rigid enough to withstand high-pressure cleaning.

Experience gained over 80 years backs every Armstrong tank heater. As a steam system specialist, your Armstrong Representative can provide assistance with everything from the boiler to the condensate return system.

Quality products from Armstrong, plus the practical knowledge to integrate them into your total steam system, ensure an efficient and trouble-free installation.

Efficient Heat Transfer

Finned pipe tank heaters are easier than bare pipe units to install, remove and repair. They are also more compact and provide superior efficiency in product heating. Finned pipe tank heaters provide up to 10 times as much heat transfer as an equivalent length of bare pipe, resulting in lower film or «skin» temperatures. This reduces coking of the product on the heat transfer surface and discoloration of heat-sensitive products. This buildup of deposits on the heater requires that more frequent cleanings be carried out to maintain maximum efficiency and original heat transfer design conditions.

This helically wound finned pipe is best suited for horizontal units, with the fins being in the vertical plane. This increases the natural convection currents, which increases heat transfer and continuously wipes the coil surface to maintain cleanliness.

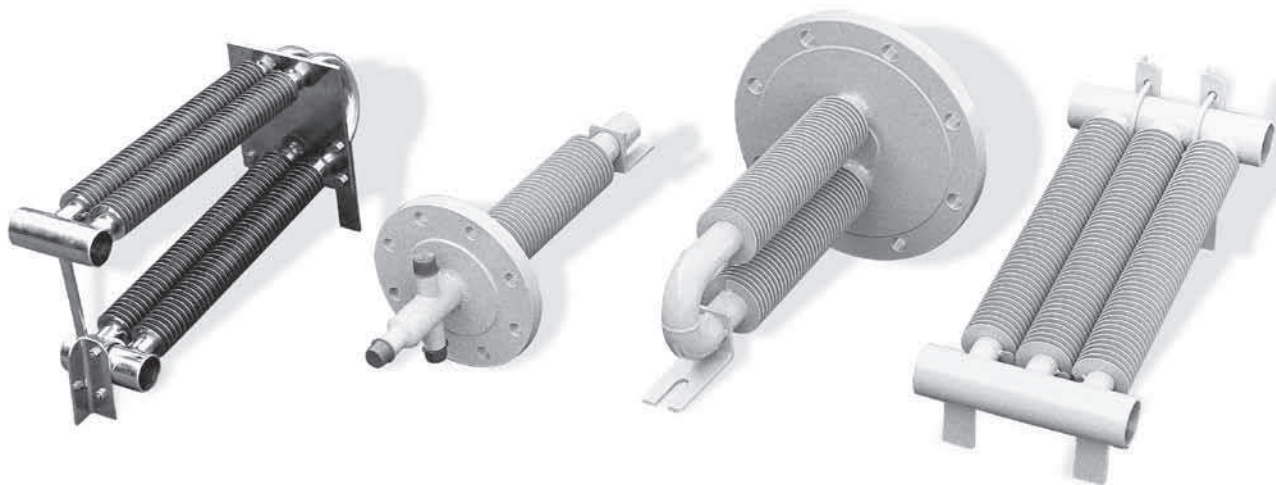
Options to Match Your Applications

Armstrong tank heaters are available in four standard configurations:

- Flange Mounted Hairpin—Types FHC and FHS
- Flange Mounted Bayonet—Types FBC and FBS
- Base Mounted Hairpin—Types BHC and BHS
- Base Mounted Direct—Type BD

These four configurations offer a range of choices to suit most area coverage and thermal performance requirements. Each type includes a number of length, width and fin pitch options. All units are available in seamless carbon steel pipe construction. The hairpin and bayonet types are available in stainless steel. Liquid heated units and custom designs are also available.

Critical to the heating and maintenance of temperatures for a broad variety of products, Armstrong tank heaters are widely used in breweries, chemical and food processing plants, oil refineries, paper mills, tank storage farms, and in shipping and other industries.



From left to right, Base Mounted Hairpin, Flange Mounted Bayonet, Flange Mounted Hairpin and Base Mounted Direct.