

Armstrong



Longer Life in the Harshest Environments

When it comes to long life under tough industrial conditions, Armstrong is all you need to know about unit heaters. Even in the most severe environments, where coil leaks and corrosion are costly problems, Armstrong coils maintain high efficiency and output.

Armstrong: Why and How

The ability to maintain heat transfer efficiency and resist corrosion—both internally and externally—is why Armstrong unit heaters are uniquely dependable. How we construct them is your assurance of lasting performance, even in severe operating environments.

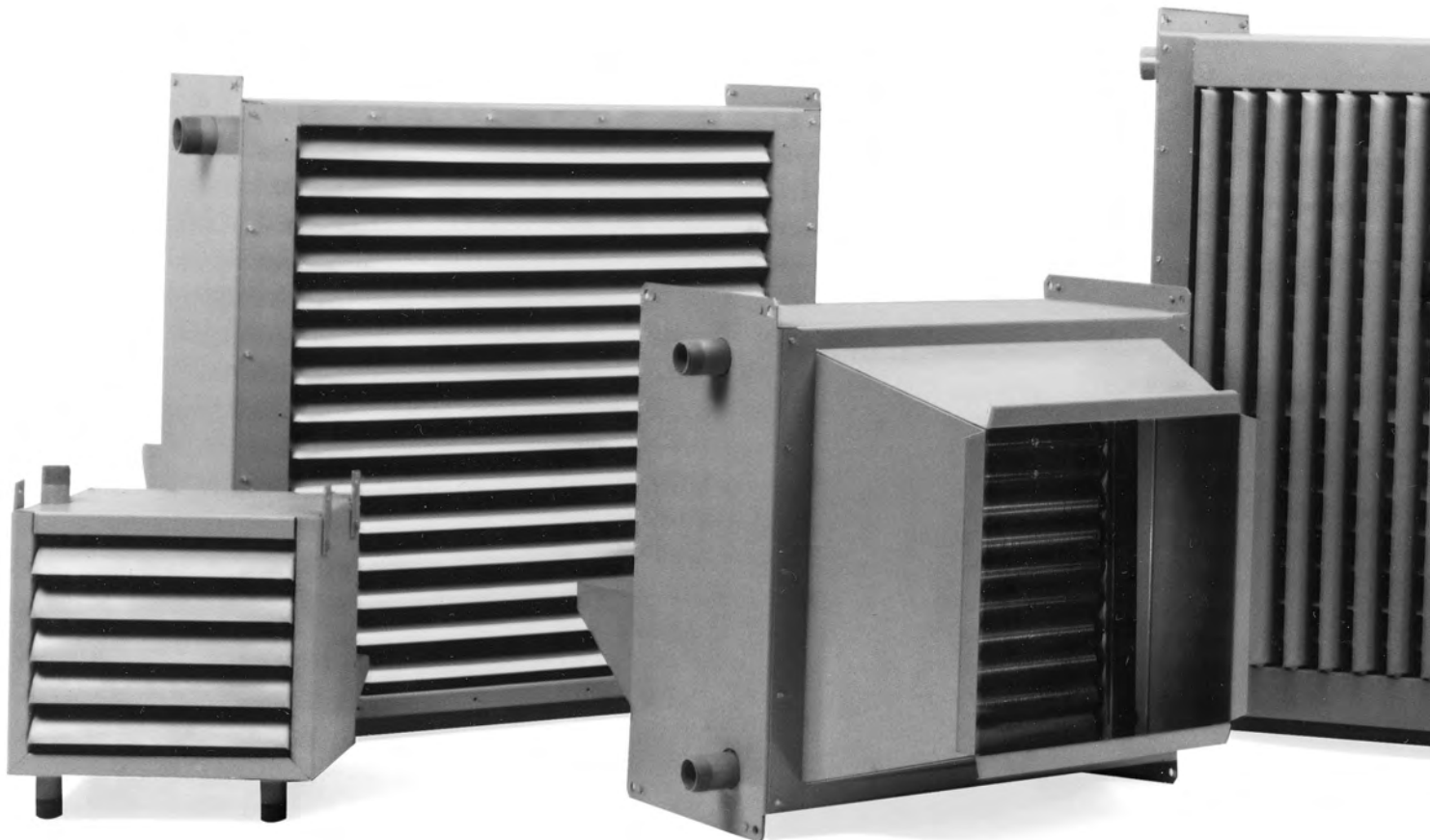
Consider these measurable benefits at work in your facility:

- **Heavy gauge enclosures:** Fabricated from 1,90 mm steel for protection and durability.
- **Corrosion-resistant heating cores:** Cores are fabricated in a full range of materials, including steel, stainless steel, copper and others. Special coatings may be applied to increase resistance to external corrosion. Cores feature all-welded construction for durability and ease of repair. Cores can be steam or liquid compatible and can be used for steam, hot water or glycol heating mediums.

- **Standard NEMA frame TEFC ball bearing motors:** Supplied on all sizes, these heavy-duty motors are totally enclosed to lock out dirt for smooth performance. Quick access to the motor permits easy replacement.
- **Thick fins and tubes:** Constructed of high-strength, corrosion-resistant materials. Fins are available in a wide variety of thicknesses and pitches to withstand high pressure cleaning without damage or distortion.
- **Customizing to your needs:** Fans range in size from 254 mm to 1 219 mm, and the wide selection of component materials means long, trouble-free service life.



Lightweight coils don't stand a chance in harsh environments. Armstrong coils survive because they're built as tough as your meanest application.



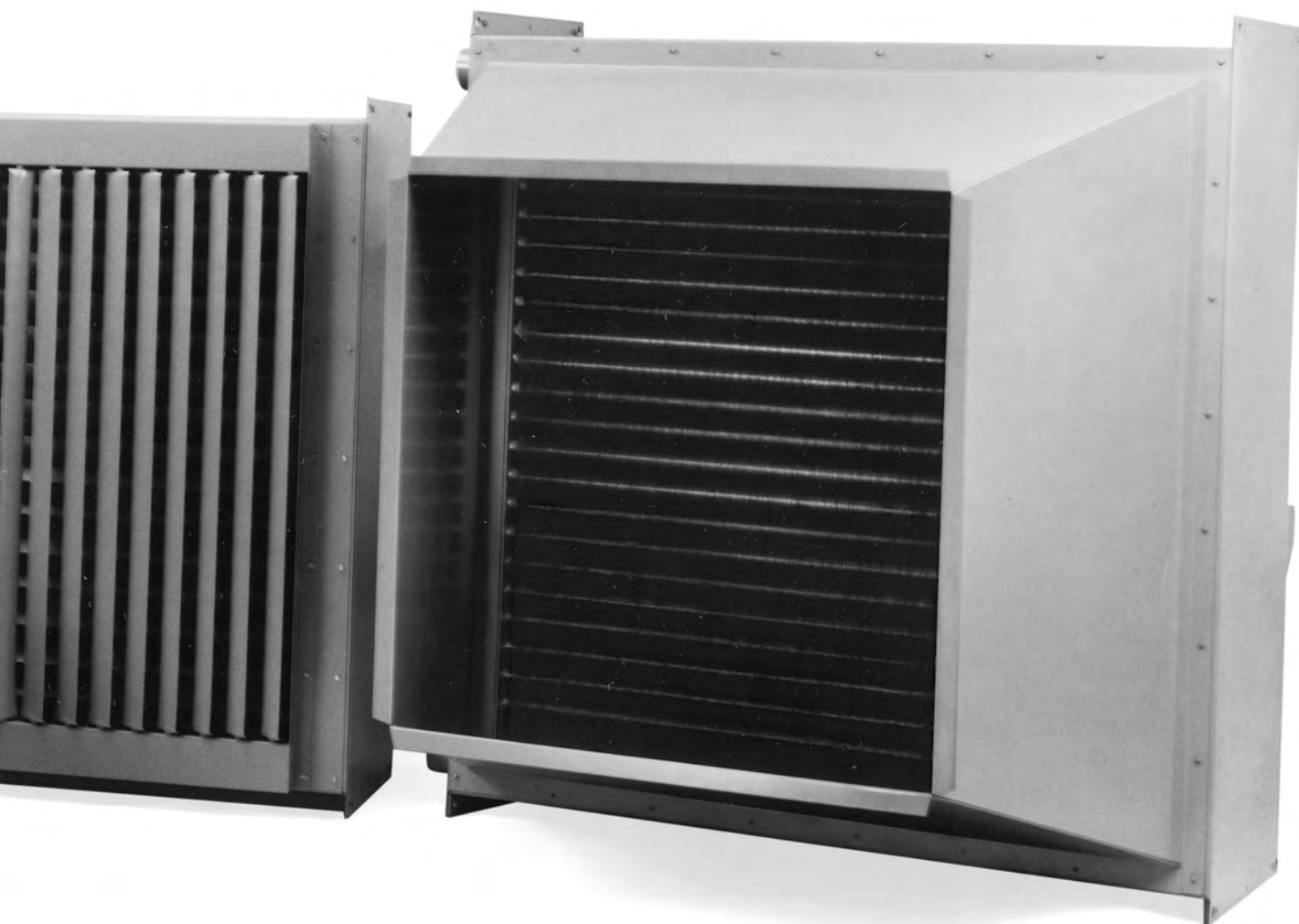
Your Steam Specialist

The first step toward ensuring trouble-free operation is proper unit selection. Your Armstrong Representative will help you select the right unit heater or door heater for any given application.

Our expertise as a manufacturer of unit heaters and door heaters is backed by over 70 years' experience in steam trapping, venting and condensate removal. To you, that

means a superior product and an Armstrong Representative who understands how to make it work in your steam system.

If you're losing heat transfer due to deteriorating coils, contact your Armstrong Representative for a complete application analysis. You'll receive top-quality, reliable products from experts who know how to maximize your steam system efficiency.





Compare the Benefits You Can't See

Many of the best reasons to insist on Armstrong unit heaters and door heaters are ones you never even see. Components like motors, bearings, tubes, enclosures and fins are built heavy-duty to ensure lasting performance.

Armstrong's options for fin material, pitch, height and type, for example, help explain why our heating cores last longer and perform with greater efficiency. These factors all have a bearing on heat transfer. Knowing how to balance these and other factors is the key to a cost-effective solution. That knowledge is perhaps the most important of Armstrong's many

254 mm - 508 mm Size

Sturdy Enclosures

Heavy-duty enclosures of 14-gauge steel provide a rigid structure. Aluminum, stainless steel and specially coated enclosures are also available as options.

Standard NEMA Frame TEFC Ball Bearing Motors

Supplied on all sizes, this rugged motor is built to last in tough industrial environments. If replacement is ever needed, motors are readily available from industrial supply dealers, and are easy to install.

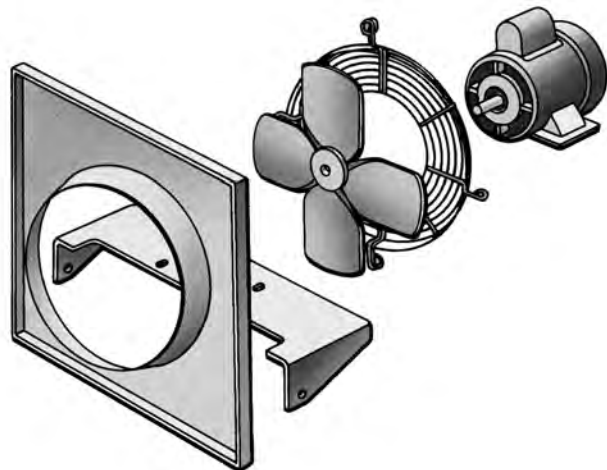
Application Versatility

Because of their heavy-duty construction Armstrong unit heaters are used in many applications. These include product coolers, lube oil coolers, flash steam condensers, hot oil heaters and many others.

Cost-Reducing Strength

Thick fins and tubes withstand pressure cleaning without damage or distortion.

OSHA-Approved Fan Guards Are Standard

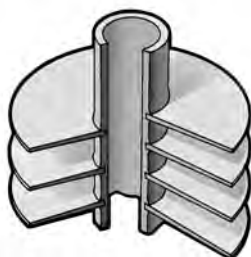


Corrosion Resistance

Fins, tubes and headers are fabricated in a wide variety of metals and alloys, including steel, stainless steel, copper, aluminum and others. Tubes and headers are of the same material to enhance strength and reduce the chance of leakage due to galvanic corrosion.

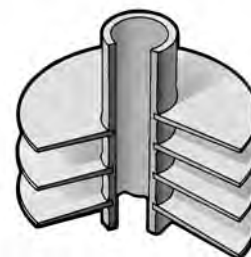
The L fin has a foot at its base and is tension wound on knurled tube material. The L-shaped base provides a large contact area between the tube and the fin, ensuring effective, long-lasting heat transfer. The L fin is recommended when tubes and fins are of the same material.

L Fin



The keyfin is manufactured by forming a helical groove in the tube surface, winding the fin into the groove and peening the displaced metal from the groove against the fin. This means a tight fit between the fin and the tube. The keyfin is the superior design for dissimilar tube and fin material.

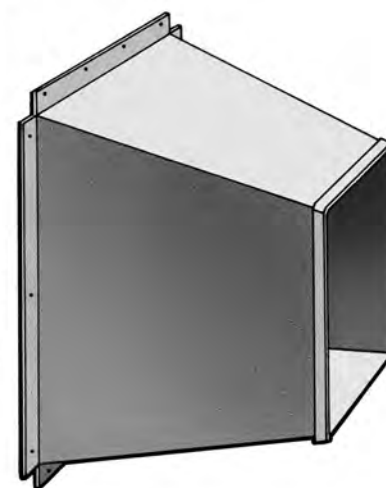
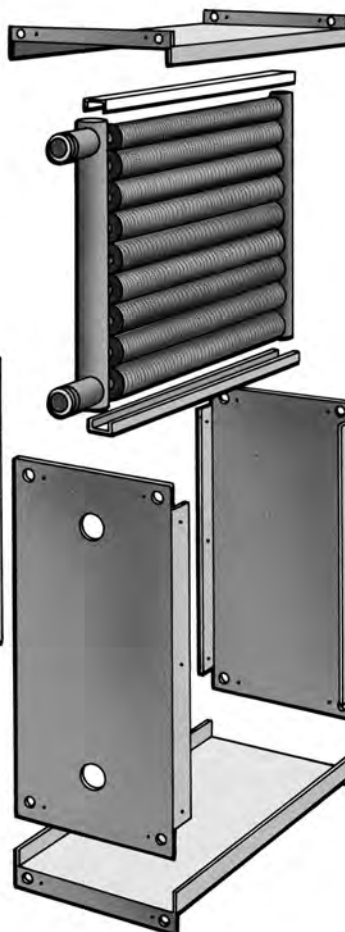
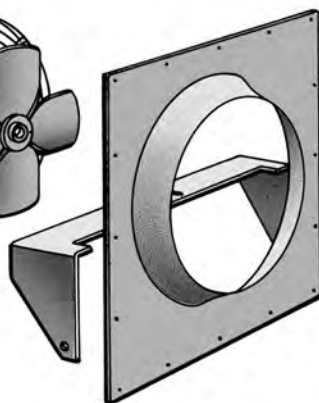
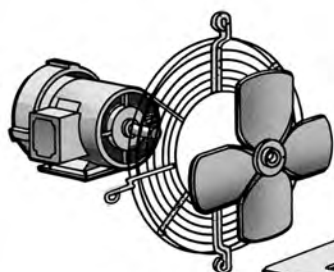
Keyfin



610 mm - 1 219 mm Size

Steam or Liquid Compatible

Cores are available for steam or liquid, allowing units to be applied in different plant areas where various heating mediums may exist.



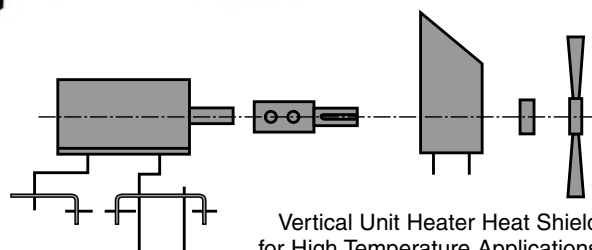
Mounting Flexibility

Basic units may be used in either horizontal or two-way vertical discharge configurations. The addition or substitution of a four-way vertical louver section produces a square discharge pattern. An optional high-velocity discharge nozzle allows the unit to be used as a door heater to temper cold air admitted through open loading-dock doors. High-velocity nozzles may also be used in applications requiring greater mounting heights.

Unit & Tank Heaters

Fan Size Flexibility

Armstrong unit heaters and door heaters are available in fan sizes ranging from 254 mm to 1 219 mm.



Vertical Unit Heater Heat Shield for High Temperature Applications



Hot Breath™ Heaters

By mounting Armstrong Hot Breath heavy duty heaters on a durable cart, portable on-demand spot heating can be delivered to any area within a facility.

Applications:

- Pest management—heat treatment for insect control
- Critical area heating during plant shut-downs
- Temporary comfort heat
- Freeze protection

Armstrong's Hot Breath Heaters are available in a wide variety of sizes, m³/m outputs, motor voltages and phase, Btu outputs and material options.

All portable Hot Breath Heaters are pre-piped and include:

- Start-up by-pass piping
- Inlet strainer
- Outlet trap
- Temperature regulator
- Manual motor starter
- Dial thermometer

NOTE: Unit design and dimensions can change without notice.



NOTE: For detailed informations on design, material specifications, options, approximate dimensions and weight, consult factory or your local Representative.

Hot Bin™ Heaters

Armstrong Hot Bin heavy duty portable heaters provide an effective way to heat bins, silos and hard-to-access areas.

Applications

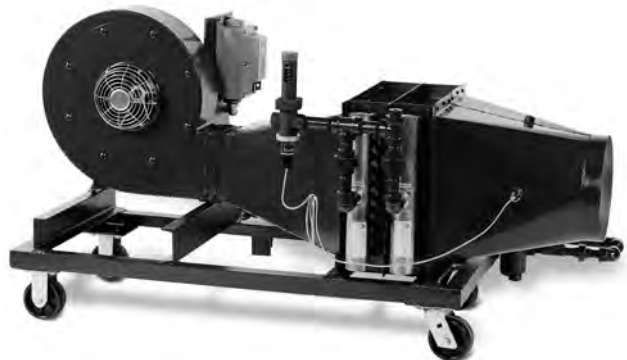
- Pest management—heat treatment for insect control
- Multiple area heating from a single heat source
- Temporary comfort heat
- Freeze protection
- Equipment sterilization

Armstrong's Hot Bin Heaters are available in a variety of configurations, Btu outputs and material options to meet most site requirements. Please consult factory.

All portable Hot Bin Heaters are pre-piped and include:

- Temperature regulator
- Inlet strainer
- Outlet steam trap
- Dial thermometer
- Manual motor starter
- Easy rolling/locking wheels

NOTE: For detailed informations on design, material specifications, options, approximate dimensions and weight, consult factory or your local Representative.



Duramix™ Face and By-pass Heating Coil

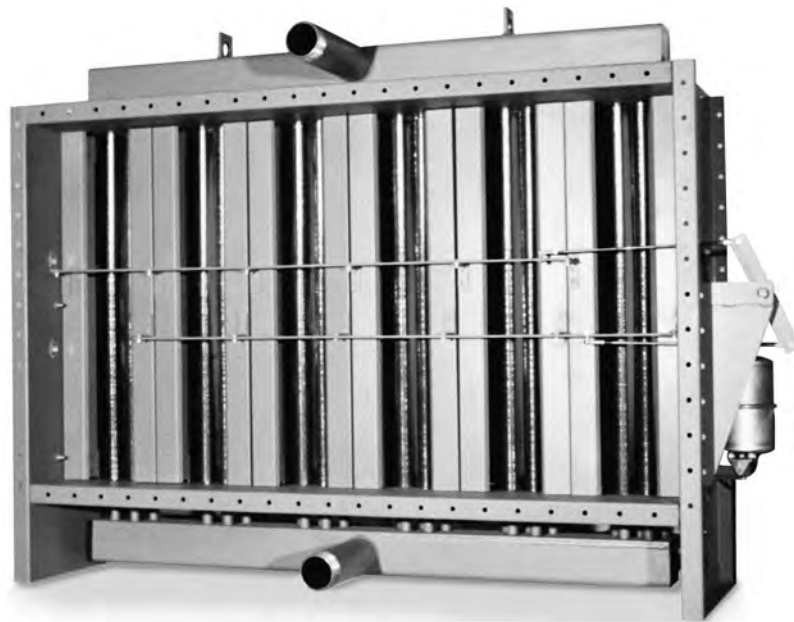
The Armstrong Duramix™ heating coil controls air temperature while operating at full steam pressure. Once set, the desired leaving air temperature is maintained by Duramix™ regardless of variations in the entering air temperature. The Armstrong Duramix™ heating coil is simple, yet very effective, and it is easy to install and maintain.

How Does It Work?

Special dampers, operated by a pneumatic or electric actuator connected to a temperature sensor, adjust the leaving air temperature by channeling the appropriate amount of entering air across the heating coils and diverting the remaining air through by-pass channels. As entering air temperature gets closer to or farther from the set point, the dampers are closed or opened accordingly.

Typical Applications

- HVAC air preheat systems
- Make-up air systems
- Combustion air preheat systems



NOTE: For detailed information on design, material specifications, options, approximate dimensions and weight, consult factory or your local Representative.

