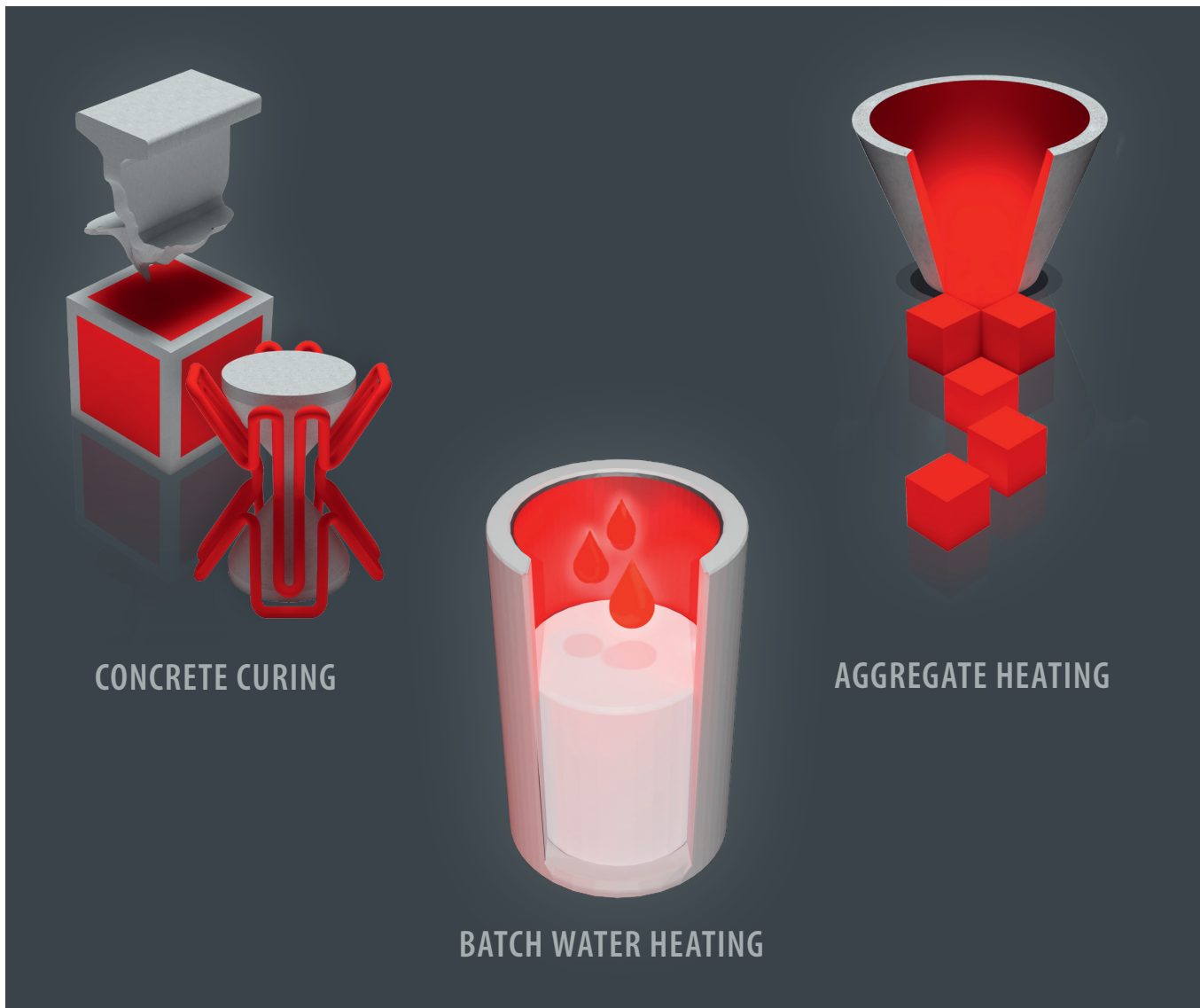


WHEN QUALITY
ISN'T AN OPTION!

COMPLETE HEAT™



VERSION 01.24 ◀

THE KRAFT® ALL-IN-ONE SYSTEM -
1. CONCRETE CURING, 2. BATCH WATER HEATING, 3. AGGREGATE HEATING

COMPLETE HEAT - THE ALL-IN-ONE SYSTEM

Complete Heat is an optimal concrete heating and curing system designed to function seamlessly on any concrete production site, catering to diverse climate conditions and heating needs. It performs effectively in regions with moderate, warm winter conditions and in the coldest areas experiencing severe winter conditions.

Utilizing Complete Heat enables concrete producers to maintain concrete production even in colder seasons while achieving notable cost savings through the system's energy-efficient features.

Based on Kraft Curing's 30+ year direct-fired Vapor technology, producers not only have a powerful source of low-pressure vapor for accelerated curing but also high-efficiency batch water heating and high-pressure/high-temperature dry heat for aggregate thawing and heating.



THE FEATURES

Complete Heat is a containerized heating unit that swiftly and efficiently delivers all the required heating for concrete production:

- 1 CONCRETE CURING**
- 2 BATCH WATER HEATING**
- 3 AGGREGATE HEATING**

THE COMPLETE HEAT SYSTEM:



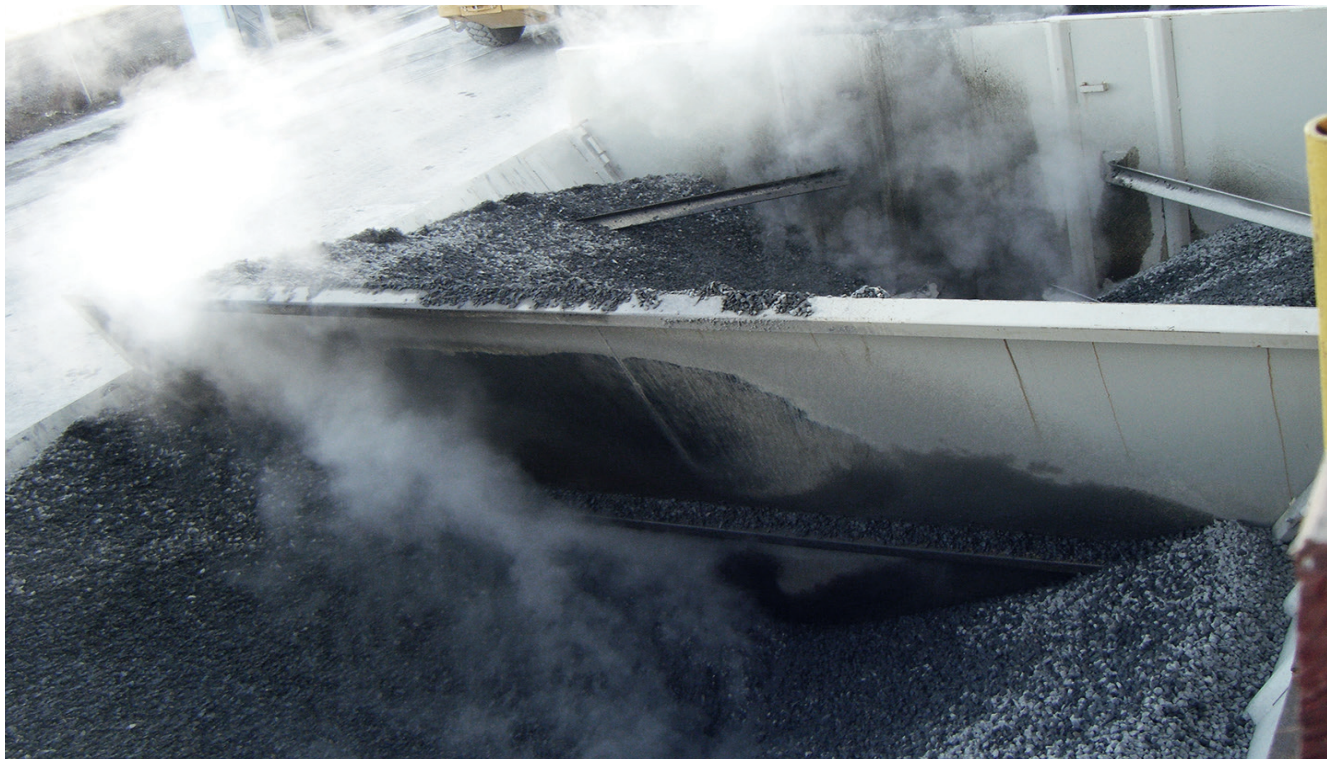
Provides accelerated curing for concrete elements through the controlled addition of heat (and humidity)



Thaws and heats frozen/cold aggregates to the required temperature – in both dump hopper and storage bins



Produces hot water (max. 180°F/82°C) for batching plant operations instantly



THE CONCEPT - 3 CONFIGURATIONS

The Complete Heat System is available in 3 different configurations and can be customized to fit specific applications:

Accelerated Vapor Curing System and Aggregate Heating

1 - VAPOR CURING + HOT ROCKS®

A complete containerized system based on the industry proven direct-fired Vapor Generator. With over 2500 units delivered worldwide over the past 30 years, this is the industry standard for low pressure vapor generation and a steam boiler alternative.

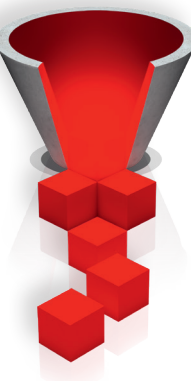
Instant vapor is produced in a water-cooled combustion with a lifetime warranty. With an efficiency of 98% and utilizing the higher heating value of fuel, this is the most efficient method to cure concrete and heat water. Fuel savings compared to fire-tube boilers and refractory combustion chamber steam generators is a minimum of 30% and up to 69% fuel savings have been recorded. It is not categorized as a pressure vessel so does not require a boiler permit, pressure vessel permit/insurance nor boiler operator. It is natural or propane gas operated.

The Vapor Generator is dual purpose and provides live vapor to the curing areas and vapor to a direct-contact heat exchanger to produce hot water for batching.

Vapor curing produces a saturated 100% relative humidity curing environment for efficient heating of both dry cast and wet cast concrete in enclosures, curing chambers or under tarp covers.

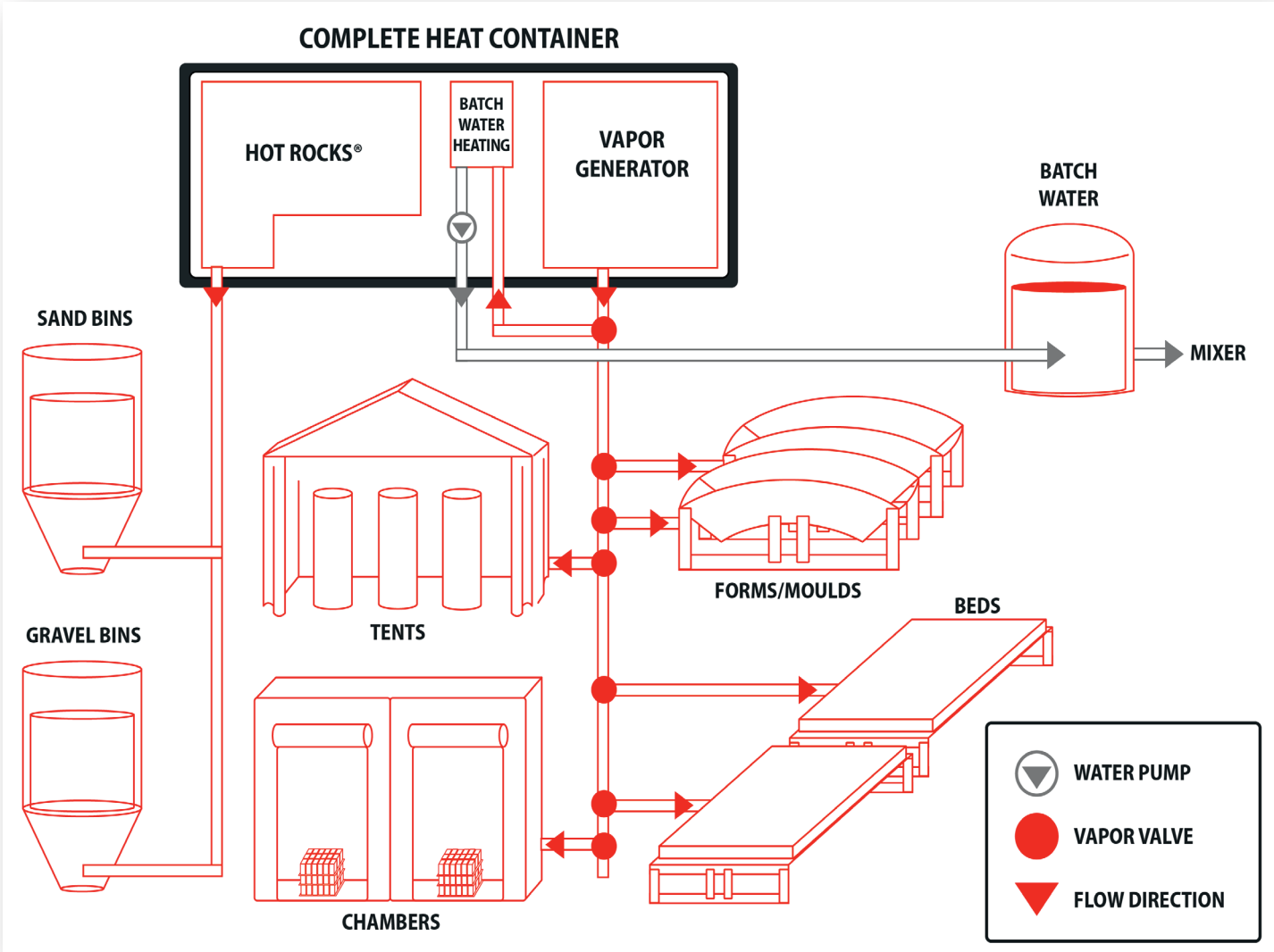
A stainless steel pressure-less heat exchange tank injects cold tap water into the top and flows counter to the hot vapor injected at the bottom for 100% heat transfer. Provides for instant hot water on demand. An optional storage tank provides for larger volumes of hot water storage.

Hot Rocks® provides super heated dry air under high pressure to the dump hopper and bins to thaw and heat aggregates to the required temperature. A high-efficiency jet fan pumps hot air (320°F/160°C) at 6000 Pascal/1 psi into ducting to the bins. Our custom designed bin diffusors provide even distribution of heat from bottom to top of the bins in a counterflow arrangement. The burner passes gas through a heat exchanger and the resultant combustion gases are exhausted through the flue ducting to outside. This means no dangerous gases are pumped into the bins and batching area for a safe environment for you and your personnel. Other technology pumps exhaust gases into the bins to save money but at the cost of health and safety.



1 - SYSTEM DIAGRAM

Accelerated Vapor Curing System and Aggregate Heating



Vapor Generator up to 35 - 2S
Hot Rocks up to 250 kW

Batch Water Heating System integrated into container

Vapor Generator up to 50 - 2S
Hot Rocks up to 500 kW

Batch Water Heating placed outside of container



Accelerated Radiant Heat Curing System and Aggregate Heating

2 - THERMALCURE® + HOT ROCKS®

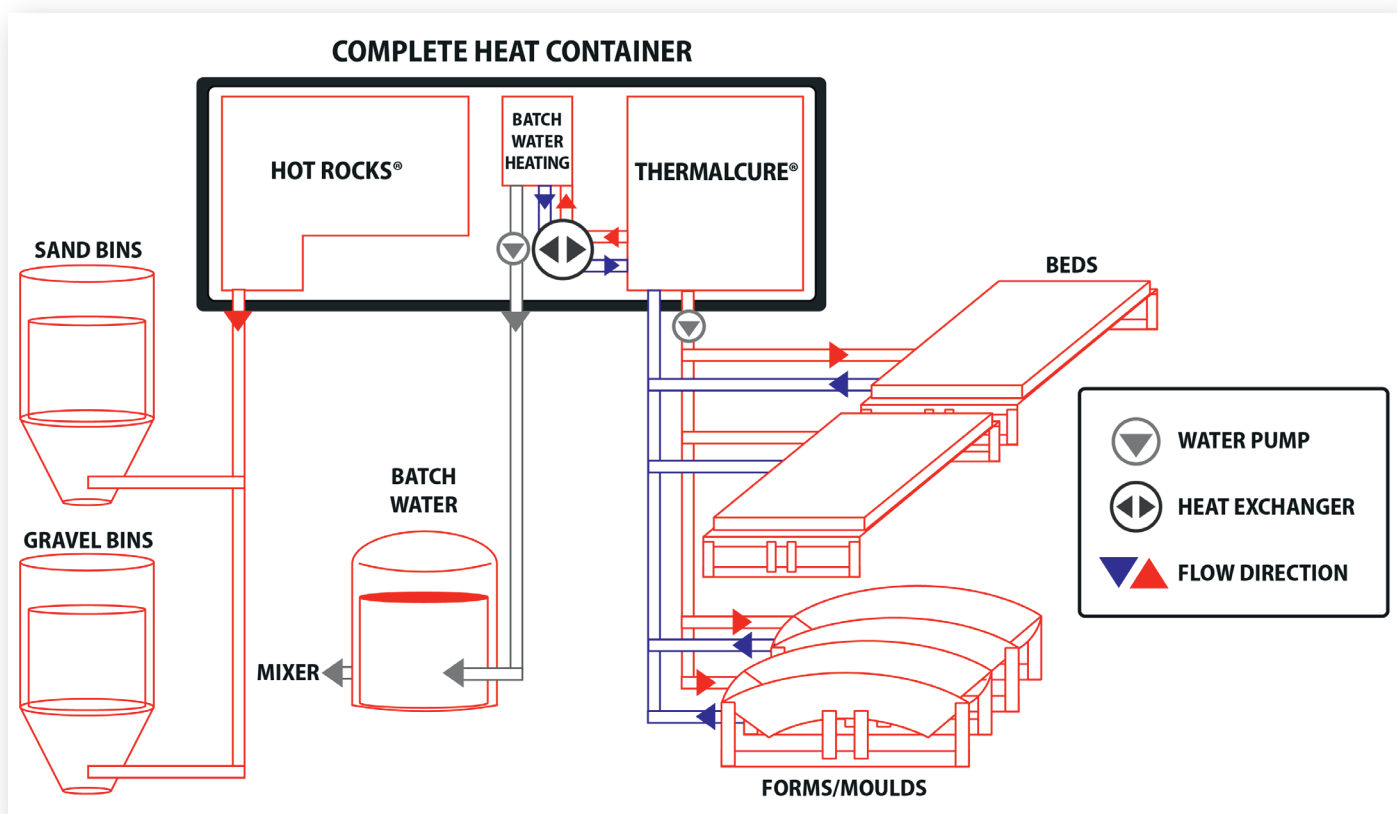
A complete containerized system to provide radiant heat curing of concrete products and heat batch water and aggregates.

ThermalCure® provides for dry heat curing by utilizing the principle of radiation of heat energy through heat exchange piping under the forms or beds. 195°F/95°C hot water is pumped in a continuous loop to each curing area/zone. This eliminates condensation and corrosion issues that high humidity/saturated air systems such as steam or vapor cause. Though not as efficient in transferring energy compared to a saturated air system, the continuous loop of heated fluid is very efficient when paired with finned tubing radiators under the concrete forms.

A high efficiency gas or oil fired condensing boiler provides for the heating of a water/glycol mixture. A variable speed pump circulates the fluid to each curing area dependent on the required curing setpoint concrete temperature. Each curing area contains heat exchange finned tube piping under or on the side of the forms or beds. Kraft Curing provides heat load calculations and installation drawings so that the required heat is delivered to properly cure the concrete.

Hot batch water is produced in a stainless steel heat exchange tank. Cold tap water flows into a heat exchanger coil whereby the hot fluid from the ThermalCure® unit releases energy and heats the water. A storage tank provides for large volumes of hot water storage. Hot Rocks® provides super heated dry air under high pressure to the dump hopper and bins to thaw and heat aggregates to the required temperature. **See description page 4.**

2 - SYSTEM DIAGRAM



Aggregate Heating

3 - HOT ROCKS® + BATCH WATER HEATER



A complete containerized system exclusively for efficient thawing and heating of aggregates and production of hot water for batching.

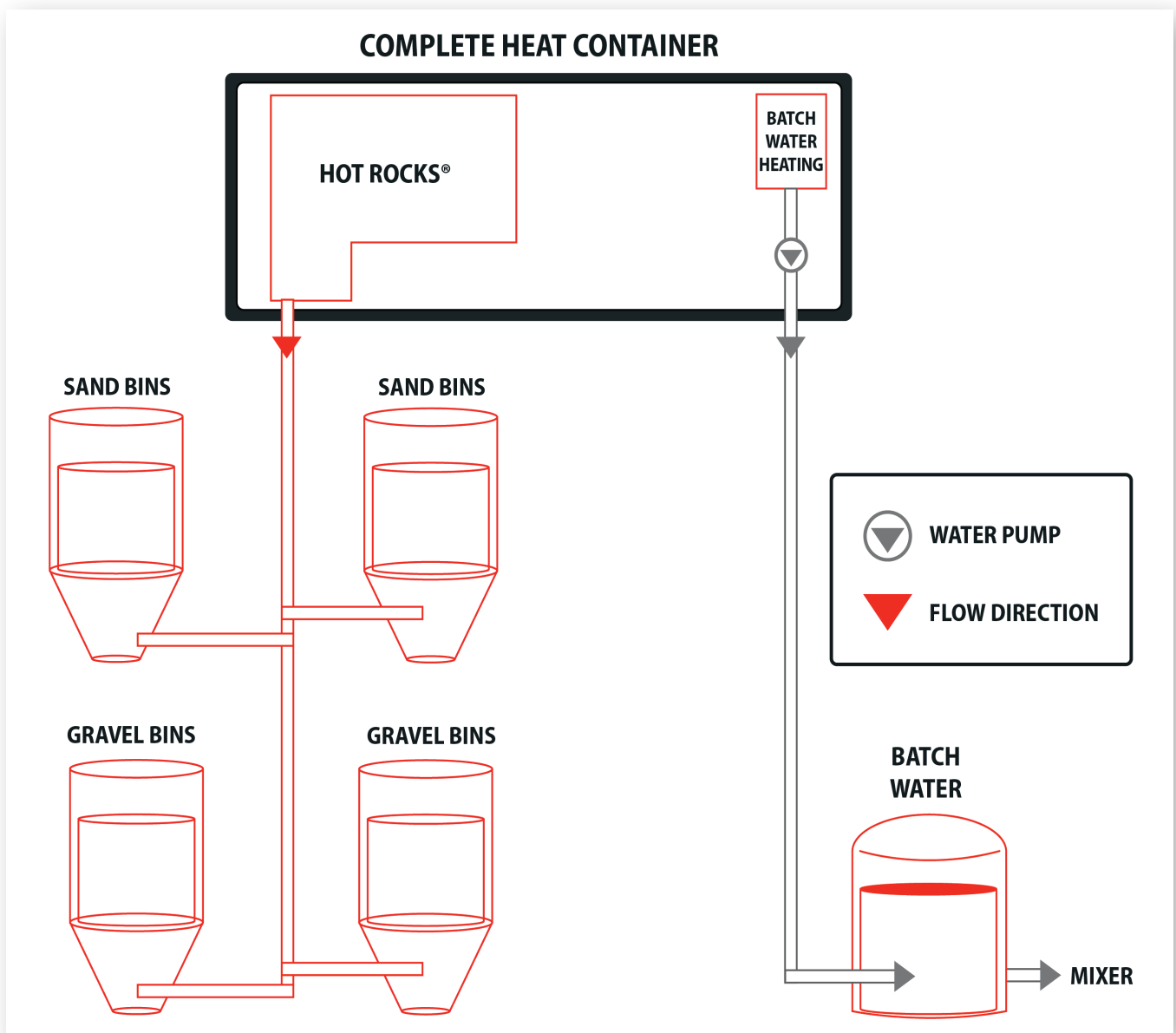
Hot Rocks® provides super heated dry air under high pressure to the dump hopper and bins to thaw and heat aggregates to the required temperature. **See description page 4.**



A high efficiency water heater provides on demand hot water for batching and includes an integrated insulated storage tank and pump.

3 - SYSTEM DIAGRAM

Aggregate Heating



THE BENEFITS

Complete Heat is an optimal heating system designed to function seamlessly on any concrete production site, catering to diverse climate conditions and heating needs.

1 - VAPOR CURING + HOT ROCKS®



Accelerated curing process reduces hardening duration, increasing form/mould turn-over



Vapor Curing has up to 69% lower operating cost than a steam boiler and 98% operating efficiency



Platinum lifetime combustion chamber warranty



Elimination of ice in concrete mix - heat can also be used for comfort heat in mixer area



Automatic operation and temperature control

2 - THERMALCURE® + HOT ROCKS®



Consistently high early strength - demoulding in 10-12h for precast and 16-22h for prestress



Eliminates condensation and corrosion issues, as well as standing water on production floor



Water temperatures between 158°F to 230°F (70°C to 110°C)
/ Concrete Temperatures from 122°F to 158°F (50°C to 70°C)



Elimination of ice in concrete mix - heat can also be used for comfort heat in mixer area



Automatic operation and temperature control

3 - HOT ROCKS® + WATER HEATER



Hot batch water produced at 95-96% efficiency



Integrated storage tank



Produces hot water (max. 180°F/82°C)



Elimination of ice in concrete mix - heat can also be used for comfort heat in mixer area



Automatic operation and temperature control

ALL FEATURES



All equipment can be UL/CSA listed/stamped



Electrical panels can be UL/CSA listed/stamped



Pressure vessel on ThermalCure is ASME coded



UL/CSA/ETL/ASME listed water heater



Low NOx systems available



OPTION

Kraft Curing Systems design, manufactures and installs complete curing and heating systems.

To complement the Complete Heat Systems we offer:



AutoCure Control System



Match-Cure System



Retractable Curing Enclosures



Complete Prefabricated Piping Systems



Tarp Roller System



Water Treatment Systems

**LINDERN, GERMANY
KRAFT CURING SYSTEMS HEADQUARTERS**

**FAIRLESS HILLS, PENNSYLVANIA
SERVICE OFFICE AND SPARE PARTS WAREHOUSE**

SERVICE AND SPARE PARTS

Kraft Curing Systems supports the North American concrete industry with a dedicated parts and service facility in Pennsylvania. Stocked with over \$1.0 million in parts in a 10,000 sq. ft. warehouse, you can rest assured that maintenance and emergency parts are available for immediate shipment. Kraft knows that response time contributes to the quick and uncomplicated support of the customer. This also includes the fast delivery of spare parts so that the customer's production run is not disrupted or delayed.



**NEED TO REPLACE SOMETHING?
WE CAN HELP! JUST CONTACT US.**

24/7 WHATSAPP HOTLINE:

+1 (267) 742 7640





A SERVICE CONTRACT REDUCES SERVICE COSTS BY 40%

With over 15 service technicians both US based and international, Kraft keeps your system maintained and running. The service network in North America was expanded last year and with two additional US technicians equipped with service vehicles, spare parts and modern tools as well as measuring devices, Kraft Curing aims to make support as prompt and practical as possible.

Kraft Curing also offers service contracts for regular seasonal maintenance. The new twice a year maintenance contracts introduce scheduled service in regular intervals for customers, carried out by an on-site technician for trouble-free system operations.

A SCHEDULED SERVICE VISIT INCLUDES:

-  Semi-annual combustion analysis and tuning
-  Examination for water, gas, and vapor leaks
-  Air and water filters checked and cleaned or replaced
-  Examination of drives and blowers
-  Examination of vapor valves, doors, circulation and exhaust ventilators
-  Oil level checked and changed as required
-  Software updates/changes as required/requested
-  Training for operators and maintenance staff
-  6-month service interval
-  Free phone and remote service



CONCRETE SHOULDN'T DRY IT SHOULD HARDEN!



THE CONCRETE CURING SPECIALISTS

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