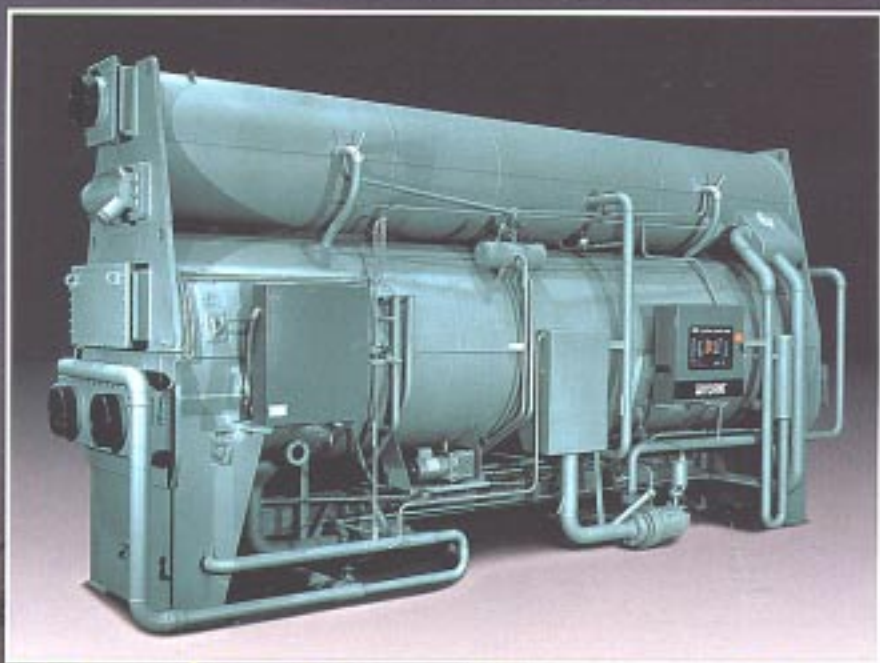


YORK[®] IsoFlow[™] Absorption Chillers

Single-Stage Steam and Hot Water



ISN IsoFlow Control Center

SYSTEM READY TO START

Display

CHILLED WATER TEMP
SUPPLY STEAM PRESSURE
REFRIGERANT OIL LEVEL
OPTIONS
OPERATOR

CONDENSER WATER TEMP
FLOW
SUPPLY HOT WATER TEMP
OPERATING PRESSURE CONDENSER
PUMP FLOW

Entry

1 2 3
4 5 6
7 8 9
0

ENTER
ESC
HELP
INFO

Setpoints

LEAVING WATER TEMP
PUMP FLOW MINIMUM
PUMP FLOW DEMAND
CLOCK

EMPTY SERVICE
HAZARD
RESERVE RESET TEMP RANGE
DATA LOGGING

Service

STOP
RESET
PUMP
STOP
STOP
STOP
STOP

UNIT
START RUN STOP
STOP

No other absorption chiller is easier to operate

The ISN™ IsoFlow Control Center puts you in control

A breakthrough in electronic engineering for absorption chillers, the ISN IsoFlow Control Center makes IsoFlow absorption chillers the easiest to operate in the industry. Not only do you have access to performance information from one easy-to-read display, you also get data previously unobtainable without time-consuming analysis.

No other chiller gives you more information — and in plain English

All monitoring and control parameters can be easily read on the large, illuminated alphanumeric display. You'll never have to worry about interpreting special reference codes or struggling to read imprecise gauge increments. The ISN IsoFlow Control Center displays messages in plain English, with numeric data available in a choice of metric or English units.

All functions are easily programmed — just push a button

A tactile-feel keypad, divided into distinct color-coded groups according to function, provides easy access to all chiller control and monitoring functions. Keys are clearly labeled and amply spaced to avoid "neighbor-key" errors, and each key is dedicated to one function, eliminating confusion. Essential setpoints that can be programmed include: leaving chilled temperatures, remote reset temperature ranges, 7-day schedule for unit start/stop, and pulldown demand limits which limit heat input to the unit during start-up.

No need to reprogram in event of power failure

A factory-supplied lithium battery (11 years rated life) provides power for safe storage of programs without external power to the panel. You can depend on the IsoFlow absorption chiller to maintain the same operating parameters programmed before the power failure.

Data logging has never been easier

The Control Center's comprehensive monitoring capabilities dramatically simplify log reading and recording. All data needed for accurate, detailed logs can be gathered directly from the display panel. Instead of moving from thermometer to thermometer and gauge to gauge, chiller status can be accessed from one station. Valuable operator time is freed for other important activities. Or better still, a printer can be connected to the panel. A printed log can be obtained automatically, at predetermined time intervals, without involving an operator.



STEAM TEMP = 250.1°F PRESS = 25.00 PSIA

GEN PRESSURE = 12.03PSIA; TEMP = 302.0°F

The power of networking

The same technological leadership that introduced the IsoFlow Control Center also provides compatibility with the YORK "Integrated Systems Network" — or "ISN."

ISN — Your key to integrated control

Through its ISN interface capability, the ISN IsoFlow Control Center can communicate all data accessible from the keypad to a remote ISN Universal DDC Control Center through a single shielded cable. This information includes: all unit temperatures, pressures, safety alarms, and status read-outs for integrated plant control, data logging, and local/remote display of operating information. The single shielded cable also allows the remote ISN Universal DDC Control Center to issue operating commands to the ISN IsoFlow Control Center, including: leaving chilled-water setpoints, remote steam-input limit, and unit operating schedule.

The ISN Universal DDC Control Center can, in turn, become the central command center for other chillers, air handlers, VAV boxes, pumps, cooling towers, and boilers.

Integration with other control systems made easy

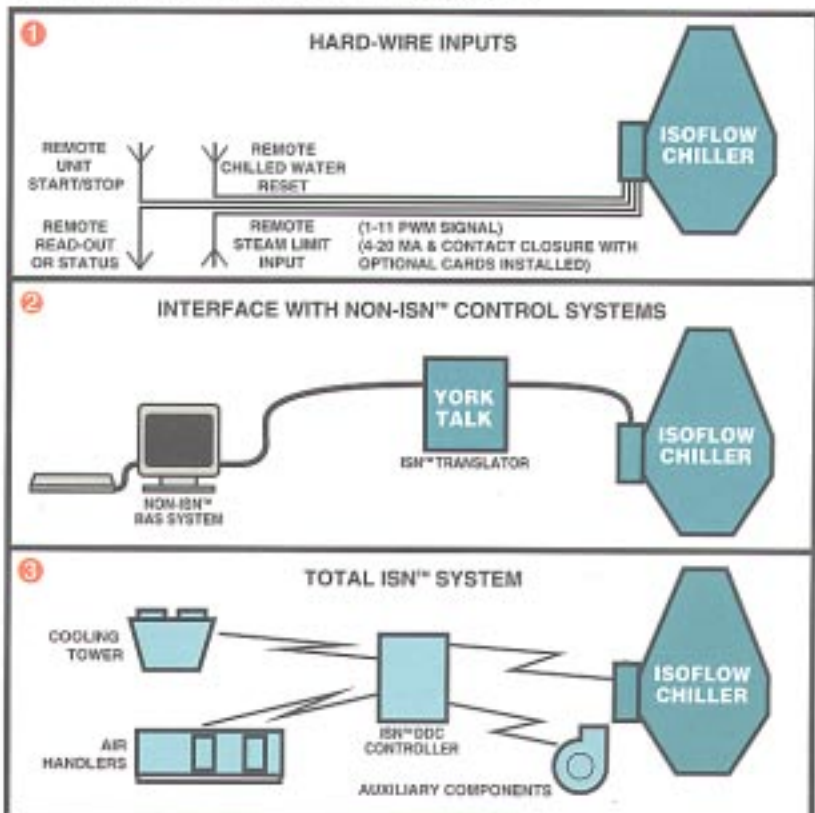
At sites using other single-effect absorption chillers, the ISN Translator allows communication between the ISN IsoFlow Control Center and a non-ISN building automation system. In these cases, the ISN Translator uses a single shielded cable to communicate directly with the ISN IsoFlow Control Center. And, through the use of a YORKTALK/MAP Industrial Translator, the ISN IsoFlow Control Center can integrate with most major industrial control systems.

The IsoFlow Control Center can also accept hard wired inputs to enable operating commands such as leaving chilled-water temperature setpoints, remote steam-limit input, and unit start/stop. Unit operating status indications available through the use of hard wired outputs include "Unit Ready to Start," "Unit Operating," "Unit Safety Shutdown," and "Unit Cycling Shutdown" conditions.

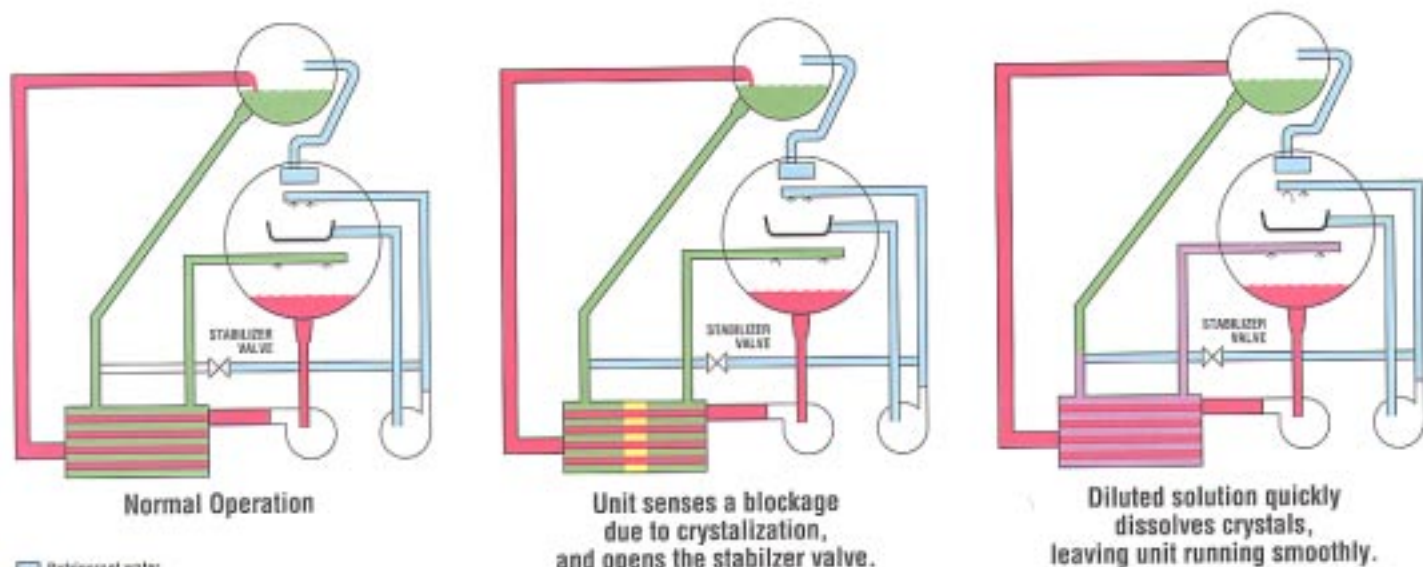
No other chiller on the market can approach this degree of system integration flexibility.



Three Levels of System Integration



No other single-stage absorption unit is more reliable



- Refrigerant water
- Weak Lithium-Bromide
- Strong Lithium-Bromide
- Crystallized Lithium-Bromide
- Strong Lithium-Bromide solution diluted by injected refrigerant

Engineered to avoid costly shut-downs

A chiller shutdown can be extremely troubling, so the YORK IsoFlow absorption chiller features a sophisticated network of controls and safeties designed to correct problems before they lead to a shutdown.

In any absorption chiller, the proper balance of solution and refrigerant is a must. However, when load or condensing-water temperature change rapidly, competitive absorption chillers may violate unit safety controls while trying to regain equilibrium, leading to expensive and troublesome shutdowns. The ISN IsoFlow Control Center monitors the machine and automatically performs adjustments in a stable, predictable fashion.

Operate continuously down to 45°F condenser water

For stability, the control center utilizes three effective internal controls — the patented Stabilizer Control, the Unloader Control and the Steam Valve Override Control — allowing the IsoFlow absorption unit to operate at condenser water temperatures as low as 45°F. The control center automatically adjusts heat inputs, refrigerant level and refrigerant temperature to ensure continuous, safe operation across a very wide range of operating conditions. Competitive chillers quit operating at such extremes. The IsoFlow absorption chiller adjusts itself to provide the maximum amount of chilling capacity that can safely be delivered.

Rest easy with automatic decrystallization

YORK has engineered solutions so you don't have to worry about crystallization problems. Each IsoFlow absorption chiller is delivered with a sophisticated protection system that quickly eliminates any minor crystallization that may occur under extreme conditions. In the unlikely event of a problem, a control-center signal immediately opens the stabilizer valve, sending pure refrigerant water to dilute the most concentrated solutions in the machine. Additionally, the Automatic Decrystallization Pipe sends hot solution to warm the solution heat exchanger. This redundancy helps to ensure safe operation.

Be safe with YORK's integrated early warning system

A comprehensive array of preprogrammed safety-shutdown functions also ensures IsoFlow operation stays within the practical limits of the lithium-bromide absorption cycle. The IsoFlow Control Center continuously monitors operating parameters that can cause a safety shutdown, including: thermal or current overloads on the solution or refrigerant pumps, low refrigerant temperature, high generator temperature or pressure, loss of chilled water flow, incomplete dilution cycle, and power failure.

In many cases, an actual safety shutdown can be avoided. The IsoFlow Control Center is designed with warning thresholds that allow operator intervention before a safety shutdown occurs. If the chiller approaches a safety shutdown, the Control Center takes over by limiting heat input and warning the operator of the situation. In this manner, the unit can be kept on line until corrective action can be taken.



Peace-of-mind — a proven feature from the leader in absorption sales and service

YORK's superior single-stage design, with heavy-duty pumps, valves and other vital components, has proven itself for over thirty years in diverse industrial and commercial applications. This rugged design, coupled with unparalleled service from our nationwide network of factory trained YORK Service technicians assures the highest degree of reliability in the industry. So if maximum uptime is important to your application, you deserve the peace-of-mind that only the leading name in absorption technology can provide — YORK.

No other single-stage absorption chiller is as energy efficient



Utilizes the lowest grades of waste heat to lower first and operating costs

An investment in a YORK IsoFlow absorption chiller gives you a reliable source of chilled liquid using lowest grade waste heat. Since the IsoFlow gives you the flexibility of using either hot water up to 240°F or low pressure

steam as the heating medium, it has almost unlimited applications for process cooling.

Low-cost air conditioning for cogeneration plants

The YORK IsoFlow absorption chiller is a perfect companion to the efficiency-oriented cogeneration plant. With the ability to operate with inlet steam pressures below 0 psig, the IsoFlow absorption unit uses every last BTU of heat input. So you get the flexibility you need to produce the highest output from your plant.

Summer cooling for campuses and hospitals

Using the IsoFlow absorber to cool surrounding buildings during the hot summer months, you can dramatically reduce your electricity losses at a time when electricity cost is highest. And hospitals that run back-up generators in the summer to reduce electric costs can use the jacket water to power a IsoFlow absorption chiller for peak-demand air conditioning, reducing electric costs even further.

Boost gas-turbine output with inlet-air cooling

With the YORK IsoFlow absorption chiller, you don't have to settle for a 25% reduction in turbine capacity during the summer months. The IsoFlow chiller can use waste heat to cool inlet air, increasing the air's density and giving the gas turbine the help it needs to boost summertime output.

Dramatically curtail demand charges with a IsoFlow absorption chiller

With the proliferation of peak-demand rates at many utilities, the IsoFlow single-effect unit offers an inexpensive means of reducing peak electric charges while simultaneously solving the CFC issue. For applications with relatively few days of peak demand, a IsoFlow machine can drastically reduce demand charges, while its low first cost speeds payback.

Waste Heat Recovery

Used in conjunction with a waste-heat boiler to recover heat from exhaust gases, or using engine jacket water, the YORK IsoFlow absorption chiller can provide valuable comfort or process cooling at little operational cost.

No other single-stage absorption chiller gives you these advantages

Water — the safest refrigerant

These days, no chiller choice is totally free from concerns about global warming and ozone depletion. The YORK IsoFlow absorption chiller uses the safest refrigerant on Earth — water — so you can easily sidestep the uncertainty associated with CFCs. When powered by existing waste heat, the IsoFlow absorption chiller has an almost negligible impact upon global warming and insulates you from skyrocketing electricity demand charges.

Efficient design gives low steam consumption

With an average consumption of 18.0 pounds per ton-hour of cooling, IsoFlow efficiency helps you get the most from your available heat. And, since IsoFlow machines achieve nominal ratings at lower steam pressures than competitive units, the IsoFlow absorption machine gives you more cooling at the lowest possible steam pressures — further reducing operating costs.

Heavy-duty pumps save energy

Each IsoFlow machine uses specially designed, low-energy hermetic pumps. In applications where absorption units are used to offset peak electricity demand, every kilowatt saved counts. That's why the YORK IsoFlow design uses only two pumps, while competitive machines use three. The result: electrical-power-input requirements as much as 40 percent less than competitive units.



Small footprint saves floor space

The YORK IsoFlow machine is up to 1/3 smaller than competitive models, saving vital machine-room floor space. YORK's design also allows tube pulling from either end for further space savings.

YORK saves installation costs

IsoFlow installation is easy and inexpensive. A single electrical connection is all that is required. Temperature sensors are all pre-wired at the factory. Also, YORK's exclusive double-walled evaporator keeps the unit well insulated, allowing the contractor to save expensive field labor.

 **YORK**[®]

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