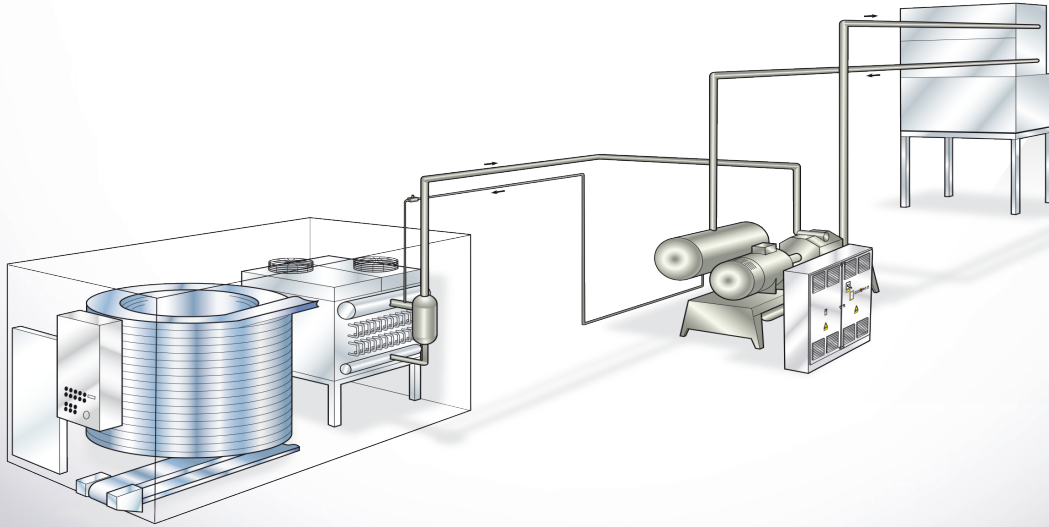




# EQUIPMENT UPGRADE KIT



## LVS Refrigeration Kit

**Improve the performance and capacity of your freezing system**

An upgrade kit can give you more throughput, greater operating safety and better hygiene on your existing equipment - with quality results.

Does your existing refrigerator system make it difficult to improve productivity - either in terms of increasing capacity or lowering temperature - which would enable increased throughput?

Do you encounter problems with your existing ammonia-based refrigerator plant - such as liquid distribution, refrigerant pump malfunctions and pressure/temperature drop - that can lead to fluctuating temperatures of frozen food products leaving the freezer?

## Radical surgery that pays

The various designs of traditional refrigeration systems often make it difficult to eliminate problems, to change the operating conditions or to increase the size of the system – especially if the ammonia charge is limited.

Extensive experience enables JBT to give you a completely objective view of your alternatives. Firstly, we will investigate your system to determine if the problem can be improved or remedied by applying our patented LVS refrigeration technology. If LVS refrigeration is suitable, we supply the relevant engineering design and equipment for the application.

## How does it work?

LVS Refrigeration utilizes optimized low-pressure-drop evaporator design, in conjunction with specially designed LVS vessels which, by maintaining correct liquid flow through the evaporator, ensure optimal evaporator performance. No valve adjustment is needed to achieve this flow – it is a function of the design.

The LVS vessel also provides surge volume for variations in refrigerant charge in the evaporator under differing load conditions, and separates vapor from liquid at the evaporator outlet.

Depending on freezer type, layout and required refrigeration capacity, the LVS vessel may be either inside or outside the freezer. If installed inside the freezer, the LVS vessel is made from stainless steel and is not insulated. LVS refrigeration systems may be designed to be suitable for use with reverse cycle, hot gas or sequential defrost systems. Installation time: 3–5 days.

## What are the benefits?

LVS refrigeration will improve your productivity, flexibility and cost-efficiency, by:

- Reducing pressure drop from freezer to compressor. Each 1 °C (1.8 °F) reduction in pressure drop improves the refrigerator plant capacity by about 5%

- Improving the performance of the evaporator
- Eliminating fluctuating evaporation temperatures caused by liquid build-up in risers
- Eliminating the liquid distribution problems associated with various freezers working at different capacities
- Increasing the refrigeration capacity of existing vessels, and reducing the required refrigerant charge
- Enabling operation at evaporation temperatures down to –50 °C (–58 °F) (provided installed equipment is suitable for the required temperature)

In addition, refrigerant pumps may either be eliminated or will work at lower flow rates, where they are generally less susceptible to cavitation problems.

## What's included?

We will normally supply:

- The LVS vessel(s), including required stands
- The required valves and controls, plus pipe and fittings required to connect the LVS vessel(s) to the evaporator(s)
- Control software in the freezer for operation of the LVS system
- The commissioning of the system
- Guaranteed installation by skilled JBT technicians
- Customer support from JBT

## What does it cost?

The cost of the LVS Refrigeration Kit depends on the Frigoscandia freezer model, refrigeration capacity, operating conditions and your refrigeration system design. Contact your JBT representative for an exact quotation as well as a calculation of your potential paybacktime.

As always, we stand behind what we sell. One call gets it all.

## The LVS Refrigerator Kit by JBT – Your Solutions Provider

**FRIGOSCANDIA**

**STEIN**

**DSI**



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We're with you, right down the line.™

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