

Execution standard and options

Standard:

1

semi plug-in

replacement of the (air) condenser with plate heat exchanger (water-based) fitted with external threads at the exchanger

2

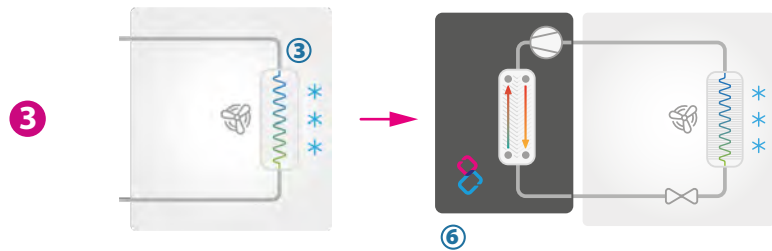
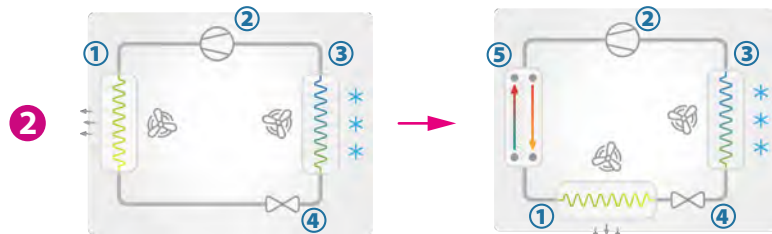
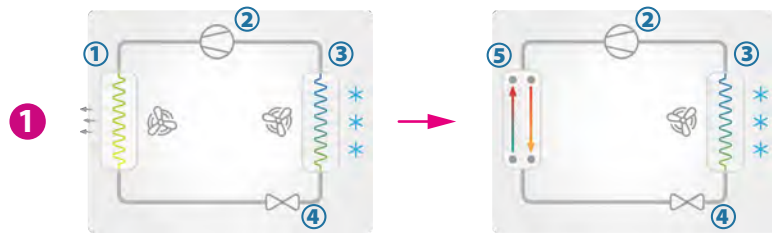
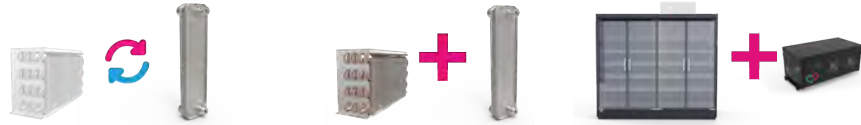
plug-in hybrid

addition of plate heat exchanger fitted with external male threads at the exchanger

3

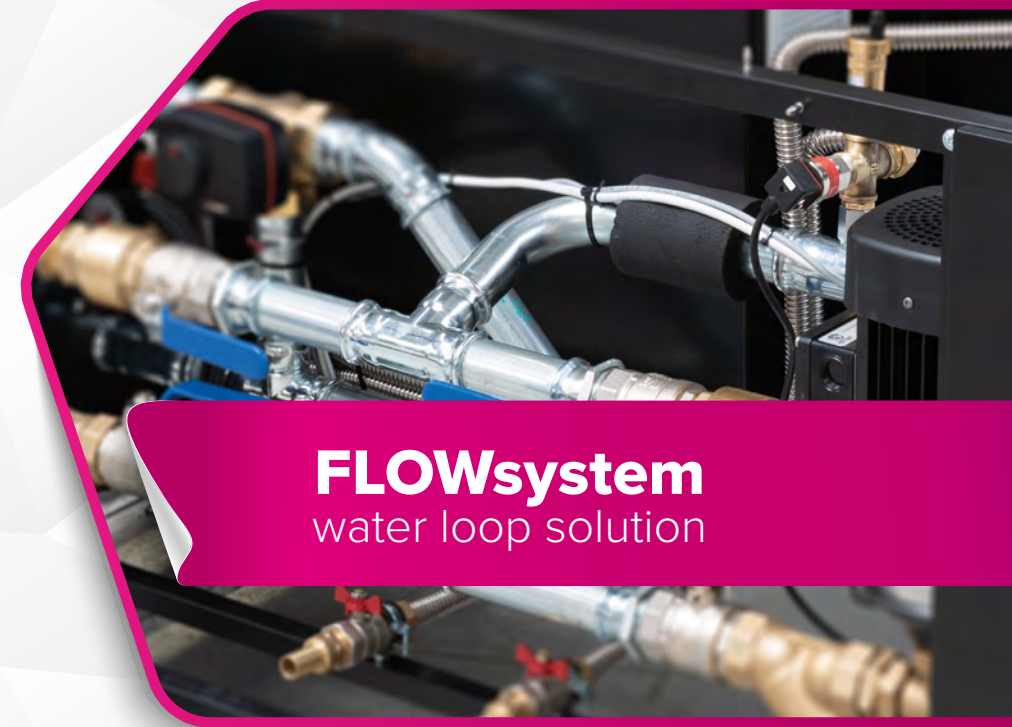
flow pack

addition of an extension fitted with external threads at the exchanger



- 1. condenser
- 2. compressor
- 3. evaporator
- 4. expansion element
- 5. water heat exchanger
- 6. FLOWpack

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FLOWsystem
water loop solution

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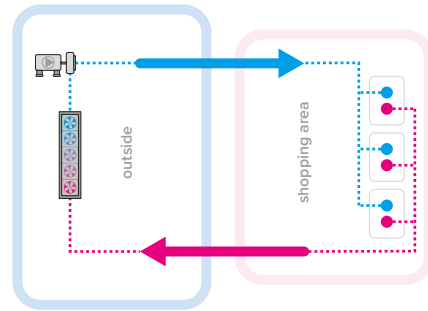
COOL EQUIPMENT
WARM RELATIONS



FLOWsystem is a water loop solution developed by JBG-2 that allows you to easily manage the heat generated by refrigeration equipment.

The system effectively transfers heat from the sales area to the selected location and allows you to manage it further

FLOWsystem is an easy, economic and ecologic way to achieve immediate savings in your retail store operational costs, regardless of whether it operates independently or is integrated with other installations.



FLOWsystem – the most important benefits

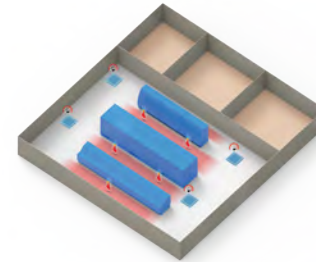
	Better heat management in the store <ul style="list-style-type: none"> • no heat emission in the summer • support for heating in the winter and in transition periods
	Devices work using natural refrigerants <ul style="list-style-type: none"> • several times cheaper than typical HFC replacements currently available • generally available on the market
	Small amount of refrigerant <ul style="list-style-type: none"> • up to 90% less than a traditional remote system
	Compliance with the F-GAS regulations <ul style="list-style-type: none"> • no operator registration required = no protocols • minimum number of maintenance services related to leaks in the system and elimination of possible leaks

FLOWsystem – additional benefits

	Reduced expenditure on water loops <ul style="list-style-type: none"> • compared to copper piping system for remote devices
	Possibility of integration with other heating systems as their support
	The system's characteristics included tidiness of installation <ul style="list-style-type: none"> • made of heat-bonded, glued and clamped PP, PVC, steel elements • without soldering, welding
	No need to clean the condensers <ul style="list-style-type: none"> • use of non-lamellar condensers or semi-plug-ins
	Constant, optimal condensing level = Constant optimal cooling capacity of devices

Shop with plug-in appliances = high heat emission

Plug-in appliances emit heat to the interior of the retail store, which increases the demand for air conditioning. This applies to approximately 180 days each year.



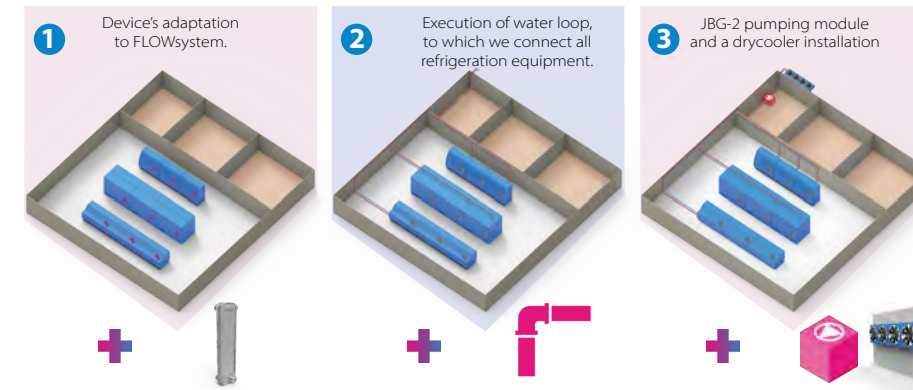
Example of the store with plug-in devices.



This applies to approximately 180 days each year.

Better heat management

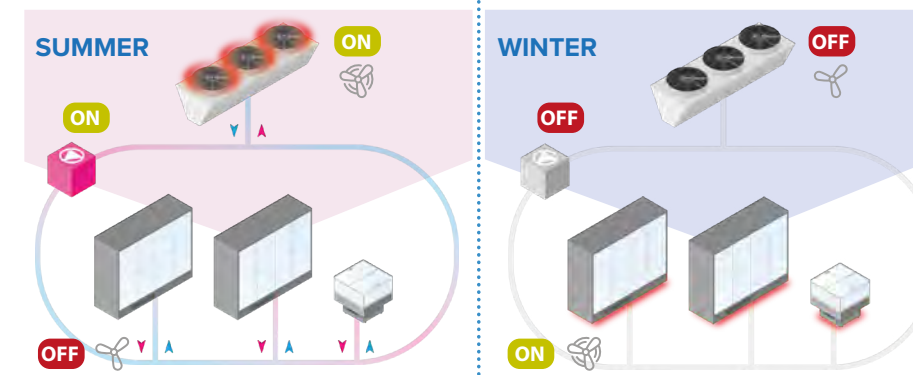
The ideal solution – FLOWsystem in three steps.



Two typical situations depending on the season

Refrigeration units transfer heat to the water installation, which is then released to the environment through the drycooler.

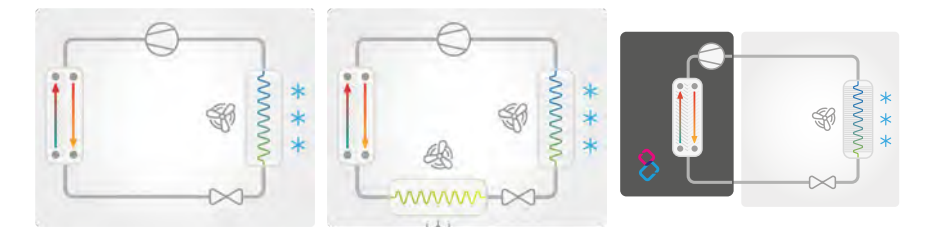
Heat emitted from refrigeration equipment can be used to support store heating.



Characteristics

The project titled "FLOWsystem" is a solution which involves water-loop installations, to which you can connect appliances equipped with aggregate. Plug-in refrigeration appliances generate heat, which is usually emitted to the inside of the store. The simplest solution to this particular problem is to connect these devices to a water-loop installation – FLOWsystem. We offer 2 options of plug-in device's adaptation and a Flow pack solution for large Remote appliance with a large sales volume.

- 1. Semi plug-in** – appliance needs to be connected to the previously installed water loop in the store prior to proper commissioning. Correct work of the display cabinet depends on the water loop. It is not a standard -plug & play device. Modification consists of replacing the standard condenser (air-cooled) with a plate-condenser (water or a glycol solution cooled). Appliance does not increase its overall size.
- 2. Plug-in hybrid** – appliance has 2 heat dissipation possibilities from the cooling unit. The appliance is fitted with both standard condenser and a water plate condenser. In such case, the appliance becomes a plug & play piece of display cabinet i.e. all that it requires for correct operation is to be plugged into a power socket. If the customer wishes to transfer the heat to the outside of the store using a water loop, such option is available. For technical reasons, that is also the safest and the most recommended solution with regards to protection of appliance and range of possibilities for managing heat generated by refrigeration display cabinet. Device does not increase its overall size. Water installation shall be prepared at the project stage.
- 3. Flow pack** – this is a modification of a typical remote display cabinet to a semi plug-in appliance. It is necessary to carry out the water loop installation in the store and connecting the device before switching it on. Modification consists of adding a cooling unit on top of the remote display cabinet. Appliance's height increases by the size of the cooling unit.



Possibility to connect 3 types of devices to one circuit

