

SUSTAINABILITY BROCHURE

**GREEN.**  
**SAFE.**  
**SMART.**

*Equipping a sustainable foodservice industry*



**HOSHIZAKI**

**GRAM**

## THE NATURAL CHOICE

*Solar heating plant and underground thermal storage pit located in Vojens, established by the local consumer-owned district heating company Vojens Fjernvarme in 2015.*

Solar heating plant and underground thermal storage pit, Vojens, Denmark.

4,166 solar panels covering 70,000 m<sup>2</sup>

**HOSHIZAKI-GRAM HAS COME A LONG WAY WHEN IT COMES TO LOWERING THE ENVIRONMENTAL IMPACT OF OUR ACTIVITIES.**

The potential for improvement however is still almost endless. With the ongoing depletion of natural resources, resulting in increased energy and water costs, and emerging energy saving regulations, the food industry of today is confronted with profoundly different challenges. Challenges that require us to look at the way we do business.

**Our focus is directed towards:**

### SUSTAINABLE TECHNOLOGIES

The development and adoption of innovative sustainable technologies, such as CO<sub>2</sub> cooling systems and challenging the limits of energy efficiency.

### ENVIRONMENTAL MANAGEMENT SYSTEMS

The continuous improvement of environmental performance by means of environmental management systems like ISO 14001.

### DISTRIBUTION NETWORK

Reviewing and optimizing our distribution network to improve lead times and reduce emissions.

### REDUCING WASTE

The reduction of waste material per produced unit in our factories.

## TURNING BLACK INTO GREEN REFRIGERATION

Further extending our green Hoshizaki-Gram portfolio, we now offer sustainable and installation-ready Gram refrigerators / freezers for remote CO<sub>2</sub> cooling systems. Additionally, 2020 brings a series of innovative, energy efficient and environmentally friendly CO<sub>2</sub> Flake and Nugget ice makers.

[Request our new CO<sub>2</sub> brochure to learn more.](#)

**HFC**



**CO<sub>2</sub>**

## LESS IMPACT FROM START TO FINISH

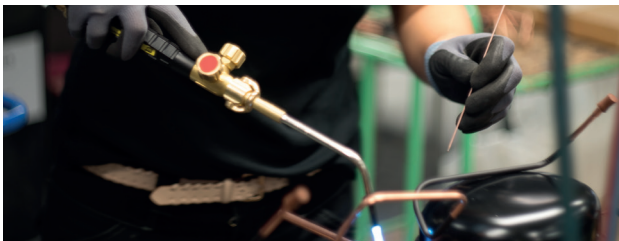
*As a major manufacturer and supplier to the food service industry of Europe, Middle East and Northern Africa we want to lead by example and go beyond minimum performance standards. Our green focus is holistic and includes the entire life cycle of a Hoshizaki-Gram product.*

Heating 2,000 district heating customers

Heating production facilities of Gram Commercial since 2015

CO<sub>2</sub> savings: 6,000 tonnes annually

### R&D AND MANUFACTURING



Research & Development is raising the bar to set new standards in energy and water efficiency. Field research indicates substantial energy saving rates of more than 50% on future Gram counter series. Positive contributions come also from strategic purchasing. Around two-thirds of factory supplies to our Danish plant are coming from ISO 14001 certified sub suppliers.

### UTILIZATION - ENERGY & WATER CONSUMPTION



Between 2017 and 2019 we further improved the energy efficiency of all Gram labelled products by 16%. This result has to be seen in the light of already high energy efficiency performance levels at the outset. Similar to Gram refrigeration, Hoshizaki hydrocarbon cubers shows significantly lower energy and water consumption stats and up to 40% saving potential compared to their competitor equivalents.<sup>2</sup>

### TRANSPORTATION



Hoshizaki Europe is in the process of building a new distribution network across Europe. With optimisation of logistics to increase direct and coordinated shipments, we will reduce on emissions. Secondly, we will work with forwarders who can provide low emission or electric vehicles.

### DISPOSAL & RECYCLING



Through dedicated efforts focusing on structural reduction of waste we achieved a substantial decrease of 25 % in disposal per unit produced between 2017 and 2019.<sup>1</sup> (Manufacturing site in Vojens, Denmark)

1. Internal ISO 14001 Review Report

2. Market research 2018 - manufacturers' websites

# REFRIGERATION IS A MAJOR ENERGY CONSUMER IN PROFESSIONAL KITCHENS

## GO GREEN IN YOUR KITCHEN

There are many ways to set up a sustainable and environmentally friendly kitchen. A big portion of the overall energy consumption of a kitchen or a bar is made up by the electrical equipment used

## WORKING ENVIRONMENT, HYGIENE AND FOOD QUALITY!

This, combined with changes and improvements in staff routines, behaviour and kitchen design you can cut the energy bill substantially - and with that the CO<sub>2</sub> footprint of your kitchen.

### COOKING EQUIPMENT

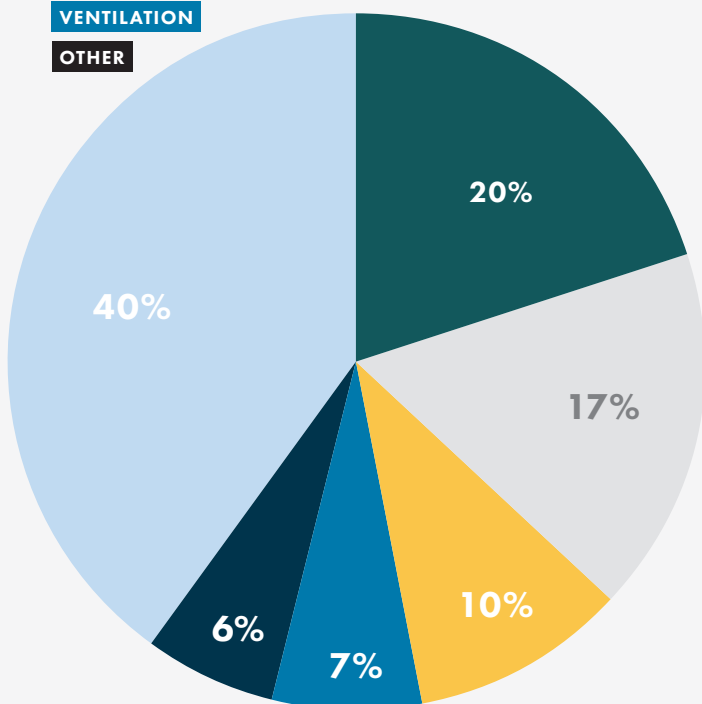
### REFRIGERATION

### DISHWASHING

### LIGHTNING

### VENTILATION

### OTHER



## REFRIGERATION COUNTS FOR APPROX. 20%

The largest part of the kitchen's electricity consumption is used for cooking equipment, refrigeration, and dishwashers.

*Storage of produce requires the use of refrigeration units. It is a given, that these units consume a lot of electricity due to uninterrupted run times. The average daily use of refrigeration units points at 20% of the overall energy consumption.*

\* Source: ProKlima – Der energy-Fonds.

Publication: Your Energy – Apply it efficiently (Ihre Energie - ' Effizient eingesetzt). Information for the gastronomie

# UPGRADE NOW - AND START CUTTING YOUR **RUNNING COSTS**



*By following a few guidelines and by choosing the most energy efficient products you can save a lot of energy, water and costs*

## LEARN FROM TOPTEN.EU

Topten provides an entirely independent list of efficient cabinets that can be used as a guide to identify the most sustainable devices for your business' individual requirements.

## DETERMINE YOUR INDIVIDUAL CAPACITY REQUIREMENTS

Make sure the sizes and capacities of the cabinets are suitable for your business' specific needs. An idea is to always consolidate your stored products, by checking if the contents of several cabinets can fit into only one, powerful cabinet. This will save you space in the kitchen, energy and - in the long run - a lot of costs.

## LIFETIME OPERATING COSTS

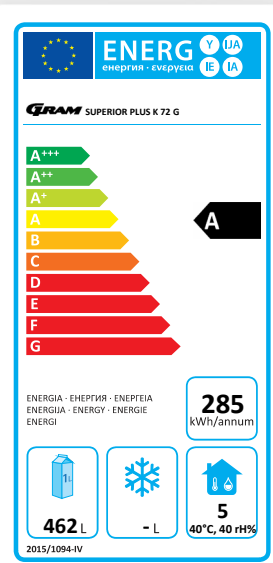
When comparing products or compiling a tender specification make, make sure to always count in operation costs over the entire lifetime of a product.

## MONITOR TEMPERATURE

We recommend to purchase appliances with an easy-to-read display showing the temperature inside the fridge or freezer. This makes it easier to monitor, control and adjust the temperature at all times.

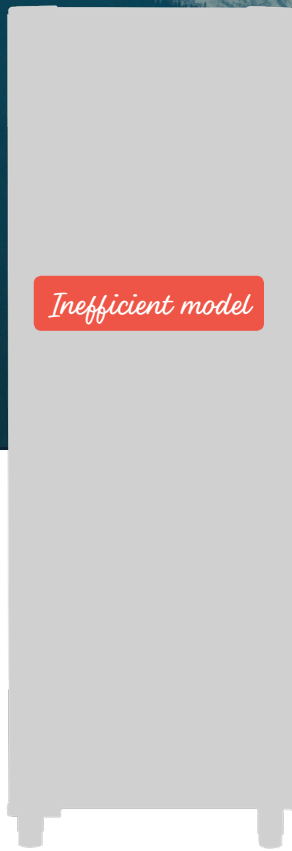
## CHOOSE CABINETS WITH INSULATED DOOR

Cabinets with insulated doors are the best choice for efficient refrigeration. The cold air is kept inside the cabinet, while the heated kitchen air is closed off more effectively. Therefore, only choose a glass door model when it is really required.



PRODUCT FICHE			
Supplier / trademark:	<b>GRAM</b>		
Model name:	SUPERIOR PLUS K 72 G		
<b>Type of model:</b>			
Chilled operating temperature	X		
Frozen operating temperature			
Multi use cabinet			
Vertical cabinet	X		
Counter cabinet			
Parameter	Symbol	Value	Unit
Energy Efficiency Class	EEC	<b>A</b>	
Energy Efficiency Index	EEl	<b>20.8</b>	
24 hour Energy Consumption	E24h	<b>1 (0.78)</b>	kWh
Annual Energy Consumption	AEC	<b>285</b>	kWh
Net volume for compartment 1	V <sub>n1</sub>	<b>461.6</b>	liters
Net volume for compartment 2	V <sub>n2</sub>		liters
Net volume for compartment 3	V <sub>n3</sub>		liters
Net volume for compartment 4	V <sub>n4</sub>		liters
Climate class	CC	<b>5</b>	
		<b>40°C, 40 rH%</b>	
This appliance is intended for use in ambient temperatures up to 40°C.			

# CUT YOUR ENERGY COSTS WITH €1.700



*Inefficient model*

**ELECTRICITY COSTS**  
After 8 years at €0.20 /kWh

**2.157 EUR**

**G**

**INEFFICIENT MODEL\***  
REFRIGERATOR



**ELECTRICITY COSTS**  
After 8 years at €0.20 /kWh

**456 EUR**

**A**

**GRAM SUPERIOR PLUS 72 CCG**  
REFRIGERATOR

## FUTURE PROOF SOLUTION AND LOWER FUTURE MAINTENANCE COSTS

The F-gas regulations (EU) put limits and prohibition dates on the application of hydrofluorocarbons (HFCs). This results in rising maintenance costs of conventional HFC products, due to increased service costs, and a steep price increase on HFC refrigerants. HC technologies, on the other hand, are future proof and maintenance costs will be much lower.

## BETTER PERFORMANCE AND COST SAVINGS

Green technology is not only the better choice for our environment, sustainable machines can also generate substantial energy savings. The most energy efficient vertical chilled storage cabinet in the market, the Gram SUPERIOR PLUS K 72 G, saves you 79% of your energy costs compared to an inefficient G labelled refrigerator\*.

\*Source: Topten.eu

## GREEN TECHNOLOGY FOR DECADES

Utilizing efficient hydrocarbon technologies since 2002 Hoshizaki-Gram was the first company to offer a complete HC standard product lineup (Gram refrigeration). In regards to ice makers we offer the widest range of HC machines in the industry.

*See backpage for list of design and sustainability awards received for our premium refrigeration products.*



**NATURAL**  
REFRIGERANTS

# HOSHIZAKI ICE MAKERS OFFER HUGE COST SAVINGS ON WATER AND ENERGY CONSUMPTION

*Hoshizaki icemakers have always been the preferred choice when it comes to premium ice, high production capacities, food safety and durability. Low operating costs are one of the characteristics that help customers to cut energy and water costs on a daily basis.*

## COMPETITOR 1

Total Electricity & Water costs after 8 years

**€ 4.531**



## COMPETITOR 2

Total Electricity & Water costs after 8 years

**€ 3.691**



## IM-30NE-HC

Total Electricity & Water costs after 8 years

**€ 2.608**



Cost savings in the range of 1.000 to 1.900 EUR\*

### Selfcontained icemaker

Electricity costs – after 8 years at € 0,12/kWh	€ 3.664	€ 2.439	€ 1.934
Water costs – after 8 years at € 3,3/m <sup>3</sup>	€ 867	€ 1.252	€ 674
<b>Total after 8 years</b>	<b>€ 4.531</b>	<b>€ 3.691</b>	<b>€ 2.608</b>
Energy Consumption	400 W/h	290 W/h	230 W/h
Water Consumption	0,09 m <sup>3</sup> /24h	0,13m <sup>3</sup> /24h	0,07 m <sup>3</sup> /24h

\* Source: Market research – manufacturers' websites Small self contained icemaker, production capacity 26-29 kg: Cost savings in the range of 1.000 to 1.900 EUR over 8 years compared with other major brands in the market.

## COMPETITOR 1

Total Electricity & Water costs after 8 years

**€ 19.123**



## COMPETITOR 2

Total Electricity & Water costs after 8 years

**€ 15.627**



## IM-240DNE-HC

Total Electricity & Water costs after 8 years

**€ 10.905**



Cost savings in the range of 4.700 to 8.200 EUR\*

### Modular icemaker

Electricity costs – after 8 years at € 0,12/kWh	€ 15.558	€ 11.773	€ 7.821
Water costs – after 8 years at € 3,3/m <sup>3</sup>	€ 3.565	€ 3.854	€ 3.084
<b>Total after 8 years</b>	<b>€ 19.123</b>	<b>€ 15.627</b>	<b>€ 10.905</b>
Energy Consumption	1850 W/h	1400 W/h	930 W/h
Water Consumption	0,37 m <sup>3</sup> /24h	0,40 m <sup>3</sup> /24h	0,32 m <sup>3</sup> /24h

\* Source: Market research – manufacturers' websites Bigger and modular icemaker, production capacity 155-195 kg: Cost savings in the range of 4.700 to 8.200 EUR over 8 years compared with other major brands in the market.

## GREEN CREDENTIALS

### ISO certificates

Gram Commercial A/S  
Environmental management system ISO 14001:2015  
Quality management system ISO 9001:2015

Hoshizaki Europe Limited, Telford, UK.  
Quality management system ISO 9001:2015

Hoshizaki (Suzhou) Co., Ltd.  
Environmental management system ISO 14001:2004  
Valid until July 29, 2020.

Hoshizaki America, Inc.  
Environmental management system ISO 14001:2015  
Quality management system ISO 9001:2015

HJ is 9001/2015

### Sustainability and Product Excellence awards won:

**2017:**  
Dec., UK  
The Caterer Product Excellence Awards  
GRAM SUPERIOR PLUS wins the refrigeration category

Nov., UK  
Hoshizaki wins Catering Insight's Supplier of the Year for Sustainability

May, UK  
Footprint Award in the Energy Efficiency Category  
SUPERIOR PLUS K72G

March, Europe  
ProCold 'Most Energy Efficient Product in Europe' Award  
in the Vertical Chilled Storage Cabinet category.  
GRAM SUPERIOR PLUS K 72

**2014 - 2016:**  
Green Good Design Award, 2015  
SUPERIOR PLUS 72

Catering Insight Award, UK, 2015  
SUPERIOR PLUS 72  
Supplier of the Year, Sustainability Award

SUSTAINABLE CATERING EQUIPMENT MANUFACTURER  
AWARD 2015, UK

Foodservice Footprint Award, 2015, UK.  
SUPERIOR PLUS 72  
Winner of Sustainable Equipment Manufacturer category

FCSI Sustainable Equipment Award 2014, UK

The Caterer Product Excellence Award 2014, UK

Catering Insight's Equipment of the Year 2014, UK

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