

CO₂ BY WEDHOLMS

Recycled CO₂ as efficient refrigerant for milk cooling



Wedholms is a leading provider of customer-focused premium solutions for the milk cooling business in Scandinavia and globally. CO₂ by Wedholms is our innovative and patent-protected system for climate-smart milk cooling and powerful heat recovery. With recycled CO₂ as refrigerant you can save both energy and money.

Milk cooling accounts for a large part of the energy consumption on the dairy farm. With CO₂ by Wedholms, you can cut the energy consumption for milk cooling by half, at the same time as the climate footprint is significantly reduced. The system is powered by a frequency-controlled compressor, which not only

saves energy but also guarantees a gentle treatment of the milk, while also increasing the compressor's operation lifespan.

RECYCLED CO₂ FROM INDUSTRY

Recycled CO₂ is a by-product from industry and by taking care of it, emissions are reduced. In addition, CO₂ is very powerful as a refrigerant, while it lacks many

negative properties that other refrigerants have. CO₂ is a non-toxic natural gas that is not flammable and has a very low global warming potential (GWP). CO₂ is also very cheap, compared to traditional HFC-gases.

POWERFUL HEAT-RECOVERY

CO₂ has a high heat recovery potential. This is why heat recovery with CO₂ by Wedholms is three times more efficient than our traditional heat recovery in cooling systems with R134a. To ensure that the potential is fully utilized, we have made heat recovery standard in our new cooling system.



Cool your milk climate-smart and economical with CO₂ by Wedholms

CO₂ by Wedholms is our unique, award-winning and patent-protected cooling system for future milk cooling.



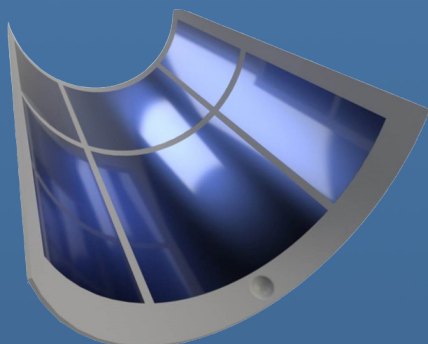
GENTLE COOLING OF THE MILK

The frequency-controlled compressor provides gentle cooling of the milk, which helps to preserve milk quality and eliminates the risk of freezing. This is especially convenient in combination with automatic milking.



INCREASED COMPRESSOR LIFESPAN

Thanks to the frequency-control, the number of starts and stops of the compressor is significantly reduced, which increases the lifespan of the compressor. This reduces the risk of unforeseen downtime of the cooling system and saves money for the farmer.



SIX INDIVIDUAL COOLING ZONES

The CO₂ by Wedholms milk cooling tank has a unique evaporator solution with up to six separate cooling zones. Each zone is controlled individually to automatically adjust the cooling according to circumstances. This guarantees optimum cooling of the milk for preserved milk quality.



PLUG & PLAY INSTALLATION

Only electricity, water and... No cooling certification is... all cooling adjustments are... designed electronic expansion... 50% faster than in traditional... for the dairy farmer.

GWP=1

LOW GWP = LOW CLIMATE FOOTPRINT

Thanks to its low global warming potential (GWP), CO₂ is the most climate-friendly refrigerant available on the market today. The GWP value of CO₂ is only 1, compared to e.g. R407C which has a corresponding value of 1,774.

50%

CUT ENERGY USE BY HALF

The powerful refrigerant together with the frequency-controlled compressor makes the cooling system very energy-efficient and provides total energy savings of up to 50%. Milk cooling accounts for a large share of the energy use on the dairy farm and CO₂ by Wedholms will therefore make a noticeable difference both for the climate and the farmer's operating economy.

>70 °C

EFFICIENT HEAT-RECOVERY AS STANDARD

The powerful properties of CO₂ as refrigerant enable efficient heating of water. The heat energy from the milk is taken up by CO₂ and then released to the water, which reaches a temperature of over 70 degrees Celsius. The volume of hot water gained from the system covers twice the need for cleaning of the cooling tank. This free heating of water saves money for the farmer and benefits the climate - every day, all year long.

INSTALLATION

Robot connections need to be connected on farm. Required for the installation of the CO₂-tank and performed automatically, thanks to specially designed valves. Installation can be performed up to 100m. This saves time and money





Complete solution for efficient milk cooling

The CO₂ by Wedholms milk cooling tanks for robotic milking are delivered in a complete package with our smart and user-friendly control unit Argos and a CO₂ cooling unit with frequency-controlled compressor, electronic expansion valves and integrated heat-recovery

as standard. A milk outlet, complete robot kit and home consumption button are also included in the package.

FLEXIBLE COOLING UNIT

When choosing CO₂ by Wedholms, you get a high-quality cooling unit mounted

on the tank. The CO₂ unit is a closed cabinet that can withstand harsh conditions both in the milk room and outdoors. It gives you flexibility in the planning of the milk room and a solution that lasts.

TECHNICAL DATA, DFC953

Volume litres	Diameter mm	Length mm	Height ¹⁾ mm	Height ²⁾ mm	Weight kg
5,000	1,700	4,028	2,090	2,127	880
6,000	1,700	4,553	2,090	2,152	1,080
8,000	1,900	4,734	2,285	2,351	1,300
10,000	2,100	4,790	2,490	2,555	1,610
12,000	2,100	5,458	2,490	2,566	1,780

Specified dimensions include cooling unit, ladder, Argos control unit and agitator.

Height¹⁾ = Normal transportation height

Height²⁾ = Maximum height at 3% tank slope

Removing agitator and legs temporarily will reduce Height¹⁾ by approx. 250 mm.

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