

Flensburg, September 28, 2022

## Secop to present new innovative green and efficient solutions at the 2022 Chillventa

Secop has developed a set of new green and efficient solutions that will be on display at the 2022 Chillventa. The new solutions target different core application areas: food and beverage light commercial, battery-driven mobile, as well as medical and ultra-low temperature for medical cold chain, as well as distribution and service. In line with its focus on green and efficient solutions, Secop has developed a range of new products for both fixed-speed drive and electronically controlled compressors. These will offer optimized performance and even more energy efficiency with special attention to low GWP HC refrigerants:

### Food and beverage light commercial applications:

- **KLF Series:** optimized for R290 with a new innovative terminal plug for flammable refrigerants
- **New electronic control unit:** modular solution with additional features for electronically controlled compressors NLV and SLVE
- **SLVE18CN:** electronically controlled R290 high-capacity compressor

### Battery-driven mobile cooling solutions:

- **The new BD NANO:** the smallest and most efficient battery-driven solution

### Medical cold chain solutions:

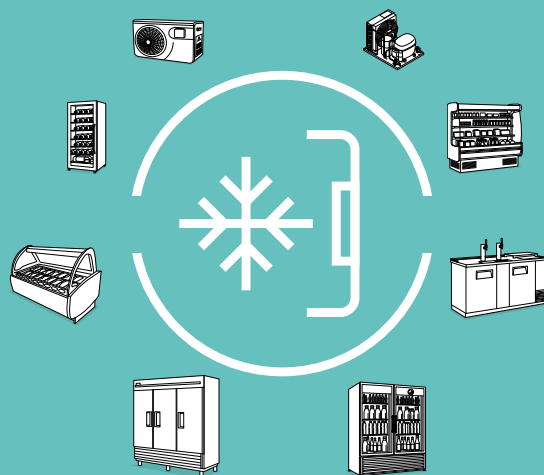
- **Medical range:** fixed-speed drive and electronically controlled compressors optimized for medical cold chain applications
- **Ultra-low temperature condensing unit:** for mobile applications

### Commercial range and service:

- New range of R290 Ecodesign condensing units
- New digital Application Selector

# FOOD AND BEVERAGE LIGHT COMMERCIAL COOLING SOLUTIONS

**SECCO**



**KLF Series: optimized for R290 with a new innovative terminal plug for flammable refrigerants**



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The new KLF series is made of compact and efficient hermetic compressors designed and optimized for light commercial R290 applications such as bottle coolers, glass door merchandisers, freezers, and food service applications.

The new KLF-Series offers premium robustness, superior efficiency, reduced noise level, optimized performances for natural refrigerant R290, and a new terminal board to facilitate connection and installation. In addition, the KLF series includes an innovative new patented hermetic terminal plug, designed to prevent risks associated with flammable refrigerants.

The new propane compressor series combines the reliability of the K-Series (more than 50 million units installed) with a set of key features developed based on years of experience gained through testing and optimizing commercial applications. Thanks to the new optimized design, the KLF series can achieve superior efficiency with low GWP refrigerants while also guaranteeing a reliable platform for robust installations in commercial applications. The available range includes R290 models from 4.0 to 7.7 cm<sup>3</sup> displacement with a cooling capacity range of 200 to 395 W for LBP applications and 415 to 704 W for MBP applications.

**New electronic control unit: modular solution with additional features for electronically controlled compressors NLV and SLVE**



Secop has developed a new range of controllers with a modular SW-HW design for its electronically controlled series NLV and SLVE. These make it possible to plan flexible configurations based on system needs. The solution has been optimized and tested to fit various food retail, food service, medical, and other light commercial applications.

The MP-Series (Multi-Purpose Electronic Controller) offers a range of additional features and connectivity options in a multi-voltage design, including GFCI tripping prevention (US). It can control the condenser fan speed and upgrades software remotely.

The new MP controller features improved robustness and safety: fire-proof IP54 housing, PCB coating, optical isolated I/Os, and SW safety monitor layers.

The new generation of MP controls has been optimized for hydrocarbon compressors to provide enhanced energy efficiency, improved system performance, and reduced noise.

The next series planned for modular configuration is the XT-Series (Extended). It enhances the MP-variant and is adaptable to specific application needs. Beyond the features of the MP solution, the XT customized solution provides additional features and options that range from multiple temperature sensors, multiple digital/analog I/O, multi-application settings, and a set of optional features.

**SLVE18CN: electronically controlled R290 high-capacity compressor**



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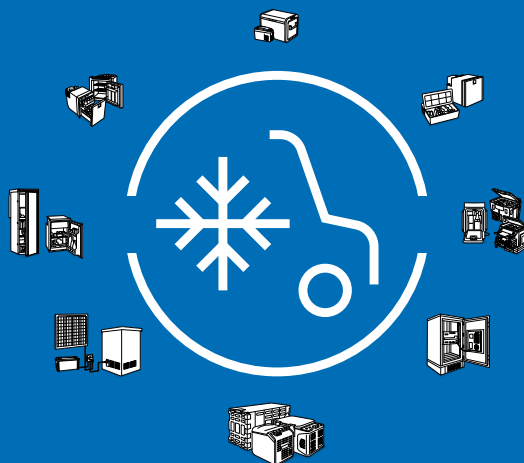
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Thanks to its experience in both R290 green refrigerants and electronically controlled compressors, Secop has developed a new variable speed compressor with a large capacity, starting from the reliable SC platform and the latest generation of electronic controls. The result is an efficient solution for light commercial applications, both LBP and MBP, such as reach-in merchandisers, display cases, supermarket freezers, solid door stainless steel, refrigerators in professional kitchens, as well as glass door merchandisers. The variable-speed compressor controller features an effective HW/SW combination that offers optimum temperature control with maximum reduction in energy consumption. The new SLVE18CN compressor adds new cooling capacity options to the widely installed NLV12.6CN, achieving more than 2 kW cooling capacity with a COP up to 2.25 (ASHRAE MBP).

# BATTERY-DRIVEN MOBILE COOLING SOLUTIONS

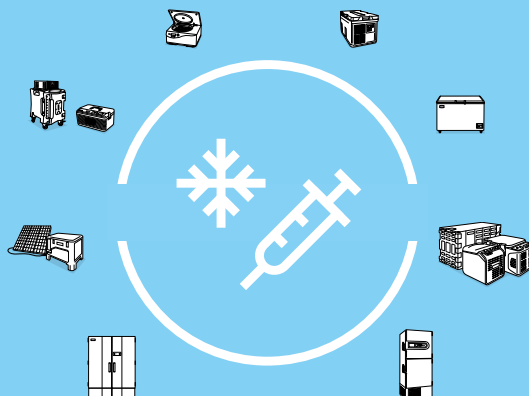
**SECCP**



## **The new BD NANO: the smallest and most efficient battery-driven solution**



Beyond the widely deployed battery-driven compressor range PL and Micro, adopted by a variety of mobile applications (automotive, trucks, recreational vehicles, boats, portable boxes, medica, solar, etc.), Secop has also developed an innovative new series of battery-driven compressors: the BD Nano! Available for R600a and R134a/R1234yf refrigerants, the BD Nano series offer enhanced benefits and value to mobile applications: a smaller size can reach premium cooling capacity with low noise and premium efficiency for low battery consumption. The BD Nano offers new degrees of freedom to the design of portable cooling solutions: more space availability, more silent cooling systems, longer battery duration, and preservation of the battery life cycle. The new generation controller used in BD Nano has been optimized to offer enhanced connectivity and low EMI. The BD Nano is the perfect solution for the new generation of e-vehicles, any type of portable cooling system for recreational use, and healthcare portable cooling solutions for medical cold chain. This is due to its compactness, low energy consumption, and low noise-vibration. The BD Nano series is the result of years of experience in battery-driven mobile compressor development.



**Medical range: fixed-speed drive and electronically controlled compressors optimized for medical cold chain applications**



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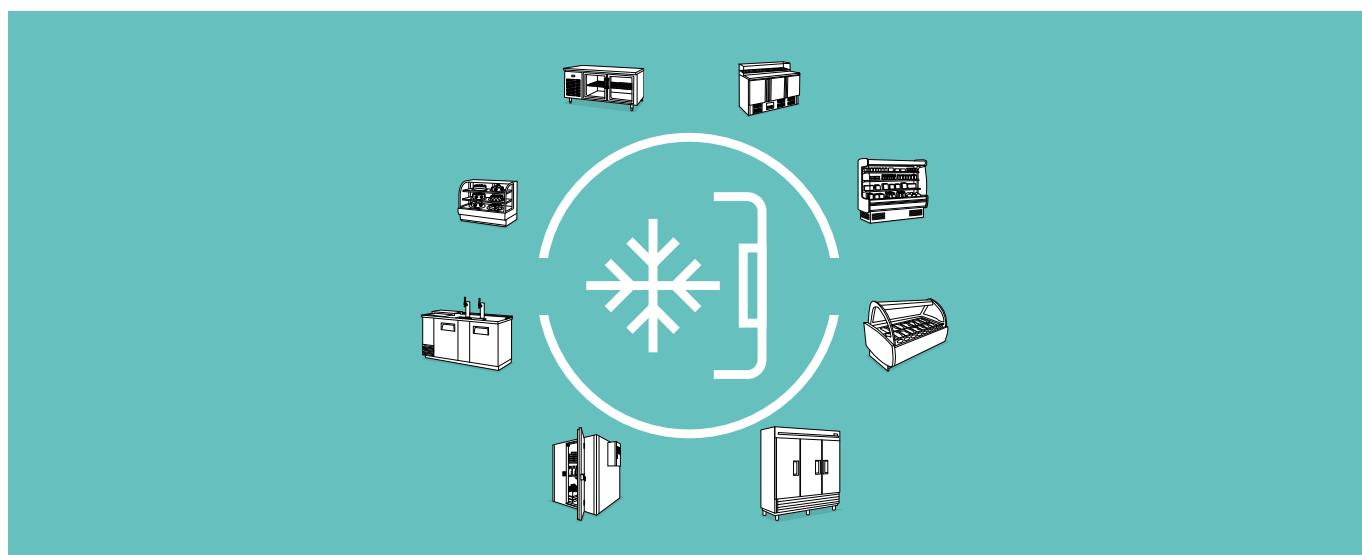
- [Leaflet – ULT compressors](#)
- [Leaflet – MP2UVULTM mobile ULT compressor](#)
- [Quick reference – Medical range](#)
- [Video – Medical range](#)

Secop has developed a range of compressors optimized to support storage and transportation for medical cold chain applications thanks to its years of experience in medical applications. The range includes both fixed-speed drive and electronically controlled solutions for AC stationary applications and DC mobile applications. For the new medical range, Secop has also developed compressors specifically dedicated to ultra-low temperature applications not only for AC but also for DC applications. The robust and premium range of compressors selected for medical applications ensures cold chain players can design reliable green cabinets with the use of low GWP refrigerants and with premium efficiency for saving energy. The electronic controller compressors included in the medical range are a perfect fit for reducing energy consumption and also optimize the cabinet performance at the same time. This makes it possible to monitor system parameters thanks to the features of the new generation of controllers. The medical range is covered by a wide variety of Secop platforms: BD, T, D, N, S.

**Ultra-low temperature condensing unit:  
for mobile applications**



Secop has designed an active cooling solution for ultra-low temperature mobile applications that guarantees reliable storage and transportation of vaccines up to the last mile. This means even in harsh environmental conditions and in places with power shortage and fluctuations and/or very poor road infrastructure. This new unit is ideal for transporting boxes of mRNA-based vaccines, C&GT specimens, and other clinical applications with temperature-sensitive specimens. The system features a compressor cascade solution with a MP2UVULTM (low stage) and a BD100CN (high stage) compressor, part of the Secop medical range, and can achieve precise temperature control and monitoring from -20 °C to -86 °C. It thus reduces the risk of waste for precious vials during transportation even in severe ambient conditions and limited grid connectivity. The new ULT unit makes it possible to assemble reliable active transportation boxes, thereby offering plenty of benefits compared to passive cooling transport boxes: monitored cooling control, precise temperature settings, reliable transport in various ambient conditions, reduced risk of wasting vials, re-usable transport system to save tons of CO<sub>2</sub>, optimized lifetime, and reduced cost of ownership.



## New range of R290 Ecodesign condensing units



### Follow these links for more information:

→ [Infographics](#)

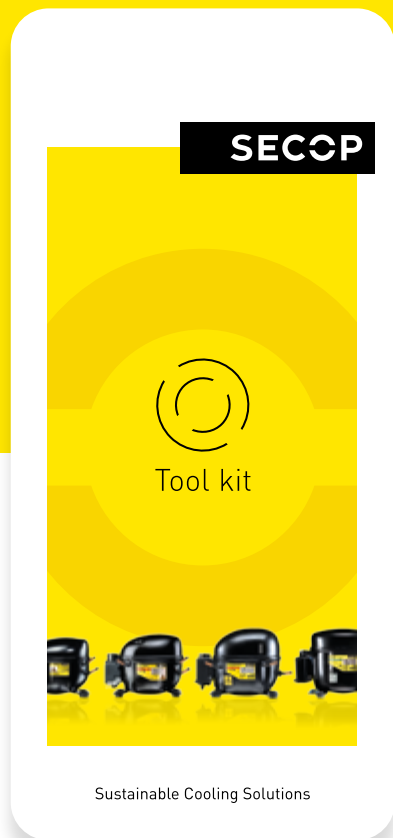
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Secop has introduced a new range of condensing units to support Ecodesign and F-Gas regulation suitable for green refrigerants. They reduce energy consumption in commercial application and service installations. Secop condensing units optimized for R290 rely on the high quality and robustness of Secop hermetic compressors, which is the result of years of experience with hydrocarbon refrigerants, powered with top efficient models of the DLE, NLE, and SCE series. The condensing units' range is equipped with high efficiency fan motors to ensure an excellent combination of efficiency and performance. The design provides easy access to components for maintenance and easy installation. The R290 series covers a wide range of applications and operating conditions: keg coolers, solid doors, stainless steel, showcases, reach-in refrigerators, or walk-in freezers.

The condensing unit range is available also for HFC systems with models optimized for low GWP retrofit R452A and R513A refrigerants with VDE approval. High quality and reliability are assured through leakage and performance tests on each unit.

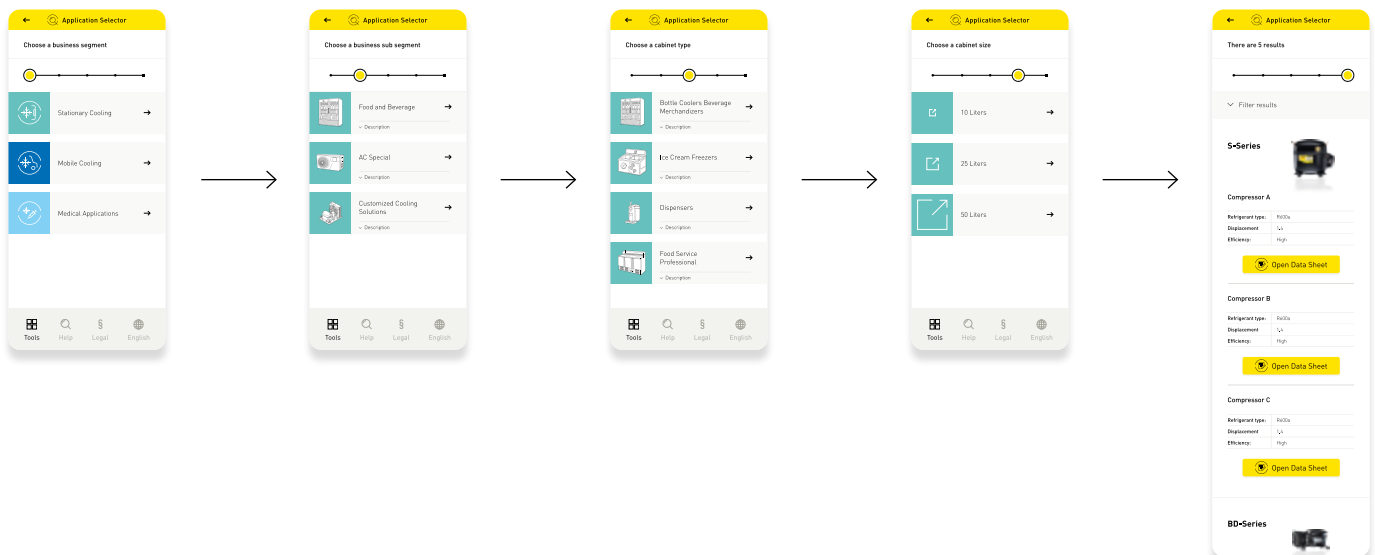
# NEW DIGITAL APPLICATION SELECTOR

**SECO**P

## COMING SOON

Secop is focused on providing digital solutions to facilitate product selections and product support. We have developed a new selection tool, on top of our proven and established compressor selector on the Web site. The new selector by application lets users choose the best compressor suitable for their specific applications and conditions. The new tool is based on years of testing and data collection by Secop global application teams and has been optimized to support the best compressor options for the most common applications in commercial and medical refrigeration.

The new selector will be officially launched page during Chillventa and will be soon available on our Web site and in the new Secop mobile app designed to be the new user-friendly tool kit.



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12

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33

laboratories  
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Germany, Slovakia,  
China, US, and  
Turkey

160

R&D engineers  
and technicians

440

patents globally

50+

countries with  
customer support



Secop is the expert for advanced hermetic compressor technologies and cooling solutions in commercial refrigeration. We develop high performance stationary and mobile cooling solutions for leading international commercial refrigeration manufacturers and are the first choice when it comes to leading hermetic compressors and electronic controls for refrigeration solutions for light commercial and DC-powered applications.

Secop was formerly known as Danfoss Compressors and is one of the founding fathers of modern compressor technology with years of experience that goes back to the beginning of the 1950s.



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STATIONARY  
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