

## Secop Launches New Website

Flensburg – Germany, January 16, 2024

Secop Digital Marketing team and visuellverstehen GmbH agency, specialized in web development, are pleased to announce the launch of the Secop updated website!

The primary goal of the website redesign was to create a more valuable, user-centric, and responsive website across all platforms and devices. Specifically, we wanted to focus on making it easier for our users to learn and find valuable information about Secop cooling solutions for their applications or industry, not only on their desktop but also on mobile devices.

We have reorganized information into three business areas: Stationary Cooling, the market segment related to light commercial cooling solutions, Mobile Cooling, dedicated to cooling solutions related to the automotive industry, boats, and recreational vehicle, and Medical Cooling, with the cooling solutions for the medical cold chain.

The update has affected the Product Portfolio page as well, with a new layout to provide a clean overview of the Secop products and their performance data. The Product Series pages have been improved, to include all the information on a single page.

For detailed information please see the attached pages 2 to 4 and watch the introduction video to see all the main improvements.

[Introduction Video](#)  
(please click)

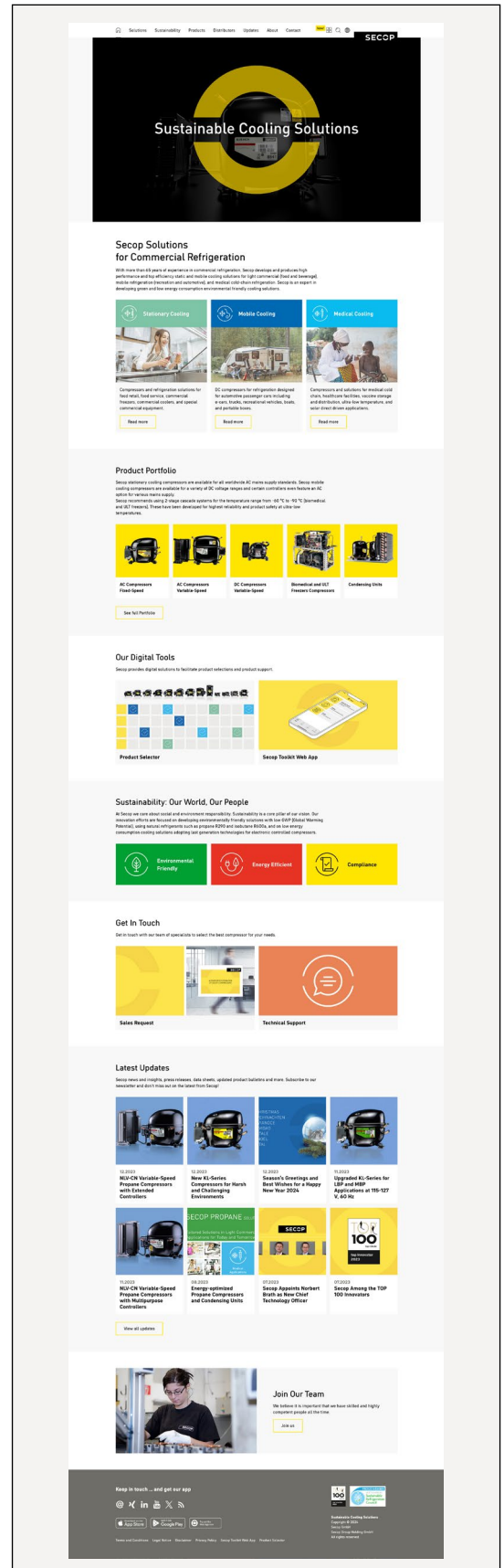
### About Secop

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.

The group has 1,080 employees worldwide with production sites in Slovakia and China as well as research centers in Germany, Austria, Slovakia, China, and the USA including a dedicated motor competence center (MCC) in Germany to support the development of electronics and motor controls.

**Secop GmbH**  
Lise-Meitner-Straße 29  
24941 Flensburg  
Germany  
Tel: +49 461 4941 0  
[www.secop.com](http://www.secop.com)



## A Renewed Digital Approach to Business.

Secop digital marketing team together with visuellverstehen GmbH, specialized in web development, have redesigned the website structure. Starting from the needs of visitors, customers, and colleagues, the team studied solutions to improve visitors' experience with the Secop website.

The improvements implemented include a new layout, new images, reorganization information, re-arrangement of the three main business areas (Stationary, Mobile, Medical Applications), re-generation of the Product Portfolio pages, and optimization of the location and availability of information.

The team has followed a user-centric approach that pursues two main targets:

- 1) Provide an easy and full navigation that makes it possible to find all the information and documentation related to our products and technologies.
- 2) Offer the possibility to easily enjoy the Secop services, both from a commercial and technical point of view.

### Series Page for the BD Nano

**BD Nano Compressors**  
Hermetic Refrigeration Compressors for DC Voltage

[Sales Request](#) [Technical Support](#)

Home > Products > BD Nano

- **Compact Size**  
Even more compact than a BD Micro compressor for more capacity in the cabinet
- **Protection Against Electromagnetic Interference (EMI)**  
Designed for reduced emissions and increased immunity against external sources
- **Premium High Efficiency**  
Greater energy savings, reduced total cost of ownership (TCO), and extending battery operation time
- **Reduced Noise and Vibrations**  
Improved acoustic comfort for noise-sensitive applications
- **Robust Design for Mobile Applications**  
Reduced knocking and improved stability during transport
- **Tailor-Made Configurations**  
Optimized hardware/software for recreational and automotive applications
- **Extended Cooling Capacity**  
Replaces larger compressors, thereby extending the range of applications
- **Multiple Compliance Options**  
Regulatory compliance and environmentally friendly R1234yf or R600a refrigerants

Technical Details	
Refrigerants	R600a, R134a, R1234yf
Nominal Voltage	12 V, 24 V
Voltage Range	9.6 - 17 V, 19 - 34 V
Frequency Range	-
Displacement	1.42-2.6 cm <sup>3</sup>
Variable Speed Variants Available	only
Ultra-Low Temperature Models Available	no
LBP	28-59 W
MHP	63-139 W
HBP	no
L-MBP	yes
M-HBP	no
L-M-HBP	no
Use	<a href="#">Mobile</a> <a href="#">Medical</a>

**Find Your Product in Our Selector**

Series: BD Nano  Voltages:  Refrigerants:

Application:  Motor:  [Find Product](#)

**Typical Applications**

- Car, front console
- Car, rear console
- Car, minibar
- Maritime appliance
- RV, large fridge

### Highlights Page for the ULT Condensing Unit

**Ultra-Low Temperature Active Mobile Medical Cooling Technology**

Secop has developed the technology for an ultra-low temperature cooling system. This system is optimized for the last mile of distribution for the new generations of vaccines and offers mobile operation even in high ambient conditions such as in tropical regions.

[Data Sheets](#) [ULT Mobile Cooling Video](#) [ULT Medical Cooling](#)

[Product Selector](#) [Download](#) [Highlight](#)

**Mobile Compressor Cascade Solution**

This dedicated condensing unit features a compressor cascade solution with a MP2U/VULTM (low stage) and a BD100CN (high stage) compressor and takes advantage of Secop's experience in medical applications, vaccine solar freezers, and mobile solutions and combines all of these applications.

Battery-driven active cooling systems for mRNA-based vaccines provide many advantages compared to existing passive cooling (dry ice) transport boxes.

Active systems offer temperature control, do not need huge quantities of dry ice, are re-usable, do not waste tons of CO<sub>2</sub>, and prevent vaccine wastage.

They are suitable for any distribution point, including in remote areas where the availability of CO<sub>2</sub> cannot be guaranteed or ambient conditions are too severe.

**Benefits**

- Safe active fully automated mobile solution based on a 2-stage speed controlled compressor cascade system with a flexible temperature range from -20°C to -86°C even in tropical ambient conditions (43°C)
- Ideal solution for mains voltage independent transport and storage of mRNA-based COVID-19 and Ebola vaccines and CDT specimens
- Low energy consumption and fast pull-down time using low GWP green hydrocarbon refrigerants
- Reliable and precise temperature setting and control and reduced risk of wasting temperature sensitive specimens and vaccines
- Reliable long-testing system with low TCO life cycle
- Designed for AC/DC global voltage range and optimized for low grid areas
- Easy "CCDR" controller customization via ToolCool® software

**Chillventa 2022 Interview**

Secop has designed an active cooling solution for ultra-low temperature mobile applications that guarantees reliable storage and transportation of vaccines down to the last mile even in severe ambient conditions. The system features a compressor cascade solution with a MP2U/VULTM (low stage) and a BD100CN (high stage) compressor, in the Secop medical range, and can achieve precise temperature control and monitoring from -20°C to -86°C.

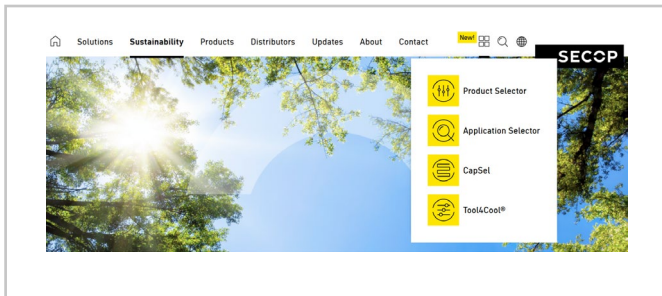
The new solutions was presented at the Chillventa 2022, where we interviewed Peter Michael Hansen and Helmut Greiner from our application team to explain the new offerings.

## The Main Website Updates

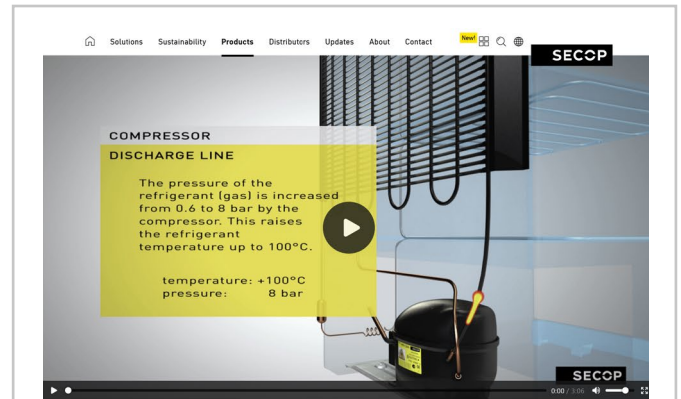
Below are some of the key changes made to the website:

- **A new and modern design:** The new website has a clean look and is easy to navigate. Now, with the usage of pictures, icons, and buttons visitors can quickly find tools, articles, technical documentation on our products.
- **A more complete and more intuitive main menu:** The header menu of the website has been redesigned to offer visitors a complete overview of the information and services Secop provides on its web pages. On the right side, you can quickly access the tools with the four-square icon, using the search function or change the language. We plan to add more languages in 2024 to support and make content available to a larger audience.

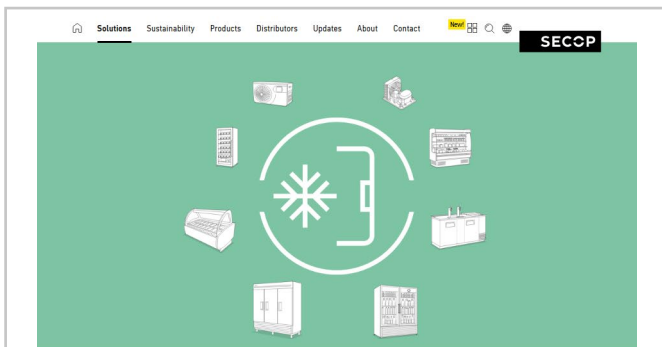
### New Main Menu



### Hermetic Compressors Basics



### Light Commercial Refrigeration



Home > Solutions > Stationary Cooling > Industries We Serve – Light Commercial Refrigeration

Stationary Cooling – Industries We Serve

#### Light Commercial Refrigeration

Secop has more than 50 years of experience in developing reliable and cost-effective solutions for the light commercial refrigeration market. Secop's continuous commitment to new intelligent light commercial solutions has over years translated into close partnerships with suppliers and customers all over the world.

Contents:

- Food Service Professional
- Dispensers
- Bottle Coolers and Beverage Merchandisers
- Food Retail
- Customized Cooling Solutions
- Ice Cream Freezers
- AC Special Applications
- Technical Literature

Contact us

#### Find the Best Compressor for Your Light Commercial Cooling Application

Secop's Application Selector helps users to find the best compressor according to the application segment and related conditions. The selector can suggest in just a few steps the best options available. Select the market segment, application type, and cabinet size. The results displayed are narrowed down to a few compressors that match user's search criteria.



#### Application Selector for Light Commercial Refrigeration Compressors

Choose a business sub segment

	Food Service Professional		Dispensers
	Bottle Coolers and Beverage Merchandisers		Food Retail
	Customized Cooling Solutions		Ice Cream Freezers

Home > Products > Hermetic Compressor Basics

#### Hermetic Compressors for Refrigeration

Formerly known as Danfoss Compressors, Secop is one of the founding fathers of modern compressor technology and an expert in advanced refrigeration compressor technologies and cooling solutions in commercial refrigeration. The basic operation of reciprocating refrigeration compressors and a refrigeration circuit can be found on this page. The hermetic compressor is at the very heart of the refrigeration unit, producing around 2900 revolutions (at 50 Hz) or 3,500 revolutions (at 60 Hz) every minute.

Summary of topics:

- Refrigerant Circuit with a Secop K-Series Compressor – Download Video
- The Compressor, Its Components, and Their Function
- Parts of a Hermetic Refrigeration Compressor
- The Refrigeration Circuit and Compressor – Download Videos
- Hermetic Reciprocating Compressors – Exploded Views
- Secop Compressors FAQ – General
- Secop Compressors FAQ – DC-Powered
- Secop Compressors FAQ – AC-Powered
- Compressor Service for R600a, R290 – Step by Step
- Refrigerant Circuit Poster and Technical Literature

#### Refrigerant Circuit with a Secop K-Series (Formerly KAPPA) Compressor

Download video

Refrigerant Circuit with a Secop K-Series (Formerly KAPPA) Compressor

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Secop K-Series (Formerly KAPPA) R600a compressor

Secop K-Series (BTK, HXK, HMK, HTK, HXK, HZK)

Secop K-Series compressor with evaporation tray

#### The Compressor, Its Components, and Their Function

##### Type label

The type label that can be found on every hermetic compressor contains critical information for the customer or user, as well as for the dispatch process. Details include the type of compressor, the refrigerant which it is designed for, the frequency, and the mains voltage.

##### Connectors

The suction connector is used to suck the refrigerant into the compressor with the process and discharge connectors located on opposite sides. Compressed refrigerant is discharged from the compressor via the discharge connector. The process connector allows the cooling system to be charged with refrigerant after the compressor has been installed. This process would usually take place in a final stage at the manufacturer's assembly line.

##### Electrical connection

The electrical connection can be seen on the outside of the compressor. Depending upon the type of device being purchased, starting equipment is sometimes preassembled together with an appropriate protective plastic cover.

##### Compressor housing

The compressor shell is constructed from a steel sheet with the top cover welded together with the bottom housing. That connection is hermetically sealed, ensuring that refrigerant cannot leak to the outside. In order to guarantee that the mechanical unit (motor, cylinder, and valve) of the hermetic compressor remains within the center of its housing, four springs are used to keep it in its dedicated position. The external interfaces of the shell include two baseplates that enable the compressor to be mounted within the appliance.

##### Motor and stator

The motor is of key importance to the compressor and consists of a stator, rotor, and power cable. It is a priority to ensure that noise levels are kept to a minimum, and the motor is mounted on springs for this reason which results in reduced levels of vibration. The stator consists of a stator stack, together with two windings of copper wires. The stator stack is constructed using sheet metal. The windings are suitably protected to ensure that damage from loose wires can be avoided. By contrast, the rotor has an iron core, cast in aluminum.

##### Electrical start equipment

The provided electrical starting device must be suitable for the individual compressor. The starting device is responsible for starting the hermetic compressor and does so by supplying the necessary power to enable the start winding to be activated. Once the compressor has started to rotate, power is supplied via the motor to the main winding. A flexible connection to the motor is provided via the power cable.

##### Pump unit

The piston and cylinder unit contains four distinct elements: a block, discharge tube, crankshaft, and piston. The discharge tube is mounted upon the block, with an oil pump mounted at the bottom of the crankshaft. The piston has a piston rod which is connected via a piston pin. Two discharge chambers are contained within the block and are used to enable compressed refrigerant to make its way to the discharge connector. The flexibility of the tube head is increased by turns of the discharge tube. The crankshaft is securely connected

- Improved organization of content:** The content on the website has been reorganized to make it easier to find what you need. From the [Home page](#), starting from the highest level, the business areas, it will be possible to find the relation between the applications and the compressors with the Application Selector integrated in each Business Area page, to discover the relevant product portfolio, the Series pages with all the details, and inside them a brand-new product finder to reach the products codes in the Selector.

In between there is the new [Product Portfolio](#) page, that provides an elegant yet effective overview of our products and their performance data. When clicking on a compressor picture, it will be possible to access the Series pages with an overview of the unique selling points of the Series, all the technical literature, the related articles, and a new feature called "Find Your Product". After selecting the parameters from each Series page, visitors will be able to visualize in the Product Selector the list of products based on the selected data all on a single page. And what's more, as an improvement, many buttons will be available to directly reach the sales team or the technical support with just a few clicks.

- New functionalities in the Product Selector:** The usability of some existing features has also been improved. For instance, now you can filter by Series in the [Application section](#) (first column from the left) and once selected the product it is now possible to check the performance data with a dedicated button from the application view. These improvements will make our website a more valuable resource for all types of visitors. Secop encourages you to explore the new website.

### Product Portfolio

**The Secop Compressor Range**

The Secop range of hermetically reciprocating compressors packs a mighty punch in a small package. Compact design, efficient motor, and low energy consumption are the main features of hermetic refrigeration compressors that build an over 60 years of reliability and quality.

AC Compressors Fixed-Speed | AC Compressors Variable-Speed | DC Compressors Variable-Speed | Biomedical and ULT Freezers | Condensing Units

**AC Compressors Fixed-Speed**

Our hermetic refrigeration compressors program for fixed AC voltages ranging from 115 V to 240 V (bracket) consist of the types P, T, D, K, RL, N, F, S, and O-Series compressors. Secop hermetically reciprocating compressors are designed for refrigeration systems using refrigerants R600a (optional), R290 (optional), R134a, R124, R125, and R422C. Selected models are approved for alternative refrigerants R452A and R513A.

Series	Displacement (cm³)	LRP (W) (1) (2)	MSP (W) (3) (4)	HRP (W) (5) (6)	Refrigerants	Use
P-Series	143-215	26-59	66-126	130-192	R400a, R134a	Domestic
T-Series	2-6-10-13	45-272	11-392	218-488	R400a, R290, R134a, R125, R124, R125A, R125B, R125C	Domestic
D-Series	4-10-14	62-382	324-478		R290, R600a	Domestic
K-Series	5.6-10.5	92-260			R400a, R134a	Domestic
RL-Series	4-77	200-395	405-704		R290, R134a	Domestic
N-Series	6.3-11.65	127-766	320-1959	1122-1271	R400a, R290, R134a, R125, R124, R125A, R125B, R125C, R125D	Domestic
F-Series	4.23-11.15	120-332	294-514	516-950	R134a, R124, R125, R125A, R125B, R125C, R125D	Domestic
S-Series	10.29-20.95	187-1137	493-1868	923-2266	R290, R134a, R124, R125, R125A, R125B, R125C, R125D	Domestic
O-Series	21.2-23.8	1200-1912	1618-2363	2813	R134a, R124, R125A, R125B, R125C, R125D	Domestic

### Product Selector

**Product Details for „BDN50K“**

Secop BD Nano Compressors are available in:

- LRP 28-49 W
- MSP 63-139 W
- HRP 0-0 W

Displacements from 1.42 to 2.6 cm³ and cover a cooling capacity (ASHRAE) range of:

Sales Request | Technical Support

Includes for BDN50K variant 1

Code number	10120205
Type designation	BDN50K
Product status	Production - Active
Performance	Class Performance
Data Sheet	
3D Model	

Further improvements and integration are planned for 2024, especially looking at the [Secop Toolkit App](#) which will also be available in multiple languages.

Secop is committed on digital tools to enhance digital touchpoints and improve services and support tools. The launch of the new website is one of the steps in our digital strategy road-map, and we aim to develop more digital touchpoints and innovative tools for customers, partners and stakeholders.