

SOTEX



MADE IN
HOLLAND

nitrogen expansion systems



PURITY 99% N₂

Nitromat Pro VP
Nitromat Pro HP

...keeps the pressure on!



A short introduction

■ We at SOTEX are experts in the area of nitrogen generators, expansion systems and compressed air systems.

The nitrogen produced by our nitrogen generators may be used for all kinds of purposes, such as for tank blanketing or in production processes.

■ Furthermore, SOTEX is a representative of manufacturer FLAMCO. Thanks to this collaboration, we are able to offer a wide range of solutions for any situation and anywhere in the world! A third major activity of our dynamic company is supplying complete compressed air systems.

■ As of 2002, SOTEX has been active in the international horticultural sector and in regional heating projects. We are also extremely successful in counselling and in supplying small-scale and large-scale projects in the industrial and utility sectors and geothermal projects.

■ SOTEX delivers its products through the heating installer. We provide consultancy agencies with the latest information, if desired accompanied by clear and simple explanations.

■ SOTEX has its own service and maintenance department, which is available 24/7 for any malfunctions and/or technical support. We are also a VCA* certified company. Safe and responsible use!



With a SOTEX nitrogen expansion system, you are always assured of pure nitrogen for use in a, for example, vertical heat storage tank.

A smart and user-friendly control system regulates the pressure balance of the nitrogen cushion in the heat storage tank, and monitors the water content. In this way you can rely on optimal safety and protection of the tank and heating system.

Nitrogen purity

The air around us consists of approximately 78% nitrogen and 21% oxygen. Compressed air is no different. Compressed compressed air also contains an amount of moisture and, when using oil-lubricated compressors, also an amount of oil vapor. After removal of oxygen, moisture and any oil vapor from the air, nitrogen remains.

The SOTEX Nitromat Pro systems are so-called PSA systems, which stands for Pressure Swing Adsorption, the most reliable and highly proven technique for extracting oxygen from the compressed air. Specific information about this on page 4.

All SOTEX Nitromat Pro VP & HP nitrogen expansion systems are factory set to a purity of 99%. That comes down to a residual oxygen percentage of 1%. Extensive tests have shown that this is the best nitrogen purity to guarantee a long-term protection of a steel heat storage tank against internal corrosion. Choosing a higher residual percentage results in a lower investment in the short term, but the negative effects of internal corrosion in the long term will be a substantially larger and very undesirable investment.



How it works

The compressed air pressure on the SOTEX Nitromat Pro nitrogen generator must always be at least 6 bar. If this is not the case, the Nitromat Pro nitrogen generator will not start. The SOTEX Nitromat Pro VP nitrogen expansion systems can only be used for vertical buffer tanks (standard 15 mBar working pressure - non-pressurized system). For special applications, eg on a horizontal buffer tank or geothermal projects, SOTEX has identical nitrogen expansion systems of the type Nitromat Pro HP. However, these work with a higher pressure (1 to 2 bar working pressure - pressure-maintaining system).

For explanation of the operation follows a description of the VP system which is by far the most used:

The Nitromat Pro VP system provides a nitrogen cushion above the water in the vertical buffer tank. The desired pressure is set at 15 mbar. It is necessary to provide the buffer tank with a nitrogen blanket (purity 99% N₂) to prevent the water from absorbing oxygen. In addition, the system prevents corrosion of the internal steel tank parts.

When the water level in the tank increases, the pressure of the nitrogen cushion also increases. This is measured by the supplied pressure sensor mounted on top of the buffer tank. As soon as the pressure reaches 20 mbar, the mechanical relief valve (part of the mechanical vacuum / overpressure control valve) will open to vent nitrogen. When the water level in the buffer tank falls, the pressure of the nitrogen cushion decreases. As soon as this 5 mbar falls below the set target pressure, the nitrogen supply valve (solenoid valve 1/2" in the Nitromat nitrogen generator) will be opened to let nitrogen flow from the nitrogen storage vessel to the buffer tank. When the desired value is reached, this valve will close again.

With regard to the pressure regulation and the measurement of the expansion space, conditions have been set as a result of which the installation generates alarms by means of sendable signals; eg low water pre-alarm, low water alarm, pressure too low alarm and pressure too high alarm. For more information, please refer to the operating instructions. The fully automatic and sophisticated control of the SOTEX control panel with SIEMENS PLC guarantees the safety of the expensive vertical buffer tank.

Scope of delivery

The complete SOTEX nitrogen expansion system complies with the European Pressure Equipment Directives (CE marking) and is also available in accordance with the EAC (CU TR) or ASME / CSA / UL regulations. The delivery consists of the following components:

- **Nitrogen generator type Nitromat Pro;**
 - professionally built in a unique robust steel design:
 - central Siemens PLC control unit with multi-color 7" Touch LCD display
 - communication via Modbus TCP/IP protocol
 - cyclone filter with automatic condensate drain
 - compressed air filters with float drain
 - integrated steel PSA vessels (> 2,000,000 operations)
 - generously dimensioned pneumatic valve set
 - pneumatic nitrogen supply valve
 - pressure sensor 4-20 mA nitrogen production
 - pressure switch minimum compressed air pressure
 - oil / water separator
 - Includes unique "Easy-Commissioning" program
- **Screw compressors on compressed air receiver;**
 - including automatic condensate drain and electric connection cable.
- **Nitrogen storage tank;**
 - complete with required accessories, including pressure gauge and spring-loaded safety valve.
- **Fittings and accessories;**
 - pressure sensor 0-250 mbar, for mounting on top of vertical heat storage tank.
 - content sensor 0-250 mbar, for mounting at the side of vertical heat storage tank.
 - plastic protective caps for the sensors.
 - ball valve 2" for emergency relief, including pipe nipple 300 mm. - 2".
 - vacuum/over-pressure control valve* PN10 including DN50 relief valve.

* flange diameter depending on tank capacity

- Compact & modern design
- Plug en Play installation
- Incl. nitrogen storage tank
- Incl. "Easy-Commissioning"
- Advanced Siemens PLC
- Including screw compressor
- Ultimate clean air
- Extremely reliable
- Purity 99% N2
- Long lifespan
- Siemens 7" touch screen
- Very user friendly
- Incl. oil / water separator
- Modbus TCP/IP



The technique

SOTEX applies the most used and proven technique to separate the oxygen from the compressed air. The Nitromat Pro systems use PSA technology;

■ *The SOTEX Nitromat Pro systems are so-called PSA systems, which stands for Pressure Swing Adsorption, the most reliable and highly proven technique for extracting oxygen from the compressed air. For this purpose, two so-called PSA pressure vessels are included in the robust steel design, which are mainly filled with a CMS material (Carbon Molecular Sieve - see photo of the blue drum on the right) that works as a molecular sieve; the oxygen molecules 'bind' to the CMS for a certain time while the nitrogen molecules are let through.*

Due to this previously mentioned time factor, there is the need for two vessels, if one vessel is generating then the other vessel is regenerating. That is, the vessel already saturated with oxygen molecules is reconstituted for the next cycle by releasing the pressure from the vessel while venting the absorbed oxygen molecules at the same time. This process is switched fully automatically by the SOTEX PLC control.

Very important; at the basis of the new design of the SOTEX Nitromat Pro nitrogen generators, the PSA vessels are specially designed to withstand long-term pressure / alternating loads and over 2,000,000 operations are guaranteed, which means a long service life.

Each SOTEX PSA pressure vessel is partly filled with a desiccant (white granules - see photo of the green drum on the right) as extra safety for protection of the CMS. The most important condition is that the supplied compressed air is treated according to the specifications.





Nitrogen storage vessel

The pure nitrogen is stored in the nitrogen storage vessel. This is done under a pressure of 5 to 8 bar. The nitrogen is extracted from this vessel at requested moments by means of the nitrogen supply valve to the heat storage tank, and is transported to the set desired pressure of 15 mbar. Due to this pressure drop and temperature rise of approx. 25 ° C. to about 90 ° C. there is a significant increase in volume of the nitrogen gas.

The content of the **nitrogen storage tank** is an **important part** of the design of the installation because it determines the running time of the screw compressor. Screw compressors are designed for long-term use and should be sufficiently heated to prevent problems with condensation in the oil and screw block.

SOTEX supplies vertical coated steel drums with the system as standard. These vessels meet the approval according to CE pressure equipment guidelines **PED 2014/68 / EU** which is suitable for most projects. For projects in the United States, SOTEX supplies nitrogen storage vessels built in accordance with **ASME** guidelines (with **U-stamp**). The same applies to projects in Canada, but supplemented with the **CRN** mark. Optionally, we can also supply the vessels with **SELO** certification for the Chinese market.

Compressed air

It is necessary to supply the correct compressed air to the SOTEX Nitromat nitrogen generator; this is realized by a complementary delivered compressor and the specifically designed compressed air treatment integrated in the Nitromat Pro nitrogen generator.

As mentioned earlier, SOTEX supplies a screw compressor on a compressed air tank with the system. SOTEX screw compressors are supplied as standard with the system. These meet the CE pressure equipment guidelines **PED 2014/68 / EU**. The screw compressors used in North American projects comply with **ASME, UL** and **CSA** guidelines.

It is necessary to select a screw compressor with a working pressure of 10 bar and in addition, the capacity of the screw compressor must be adapted to the required consumption of the nitrogen generator.

All the SOTEX 'Nitro' screw compressors are extremely reliable and quiet, and with proper responsible use and regular maintenance are characterized by a very long service life.

Each SOTEX Nitromat Pro nitrogen generator is standard equipped with a sophisticated compressed air treatment built up from a combination of a cyclone filter, compressed air filters and a unique desiccant integrated in the PSA vessels.

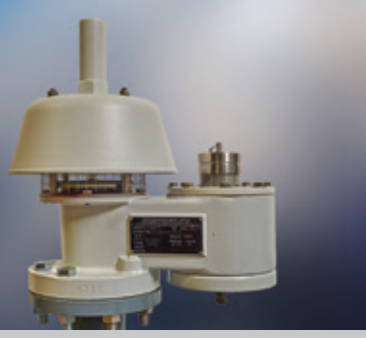
The compressed air treatment is absolutely necessary to guarantee a long life of the PSA and therefore a high purity of nitrogen. These compressed air filters in particular must be regularly maintained.

For more information regarding use and maintenance, please refer to the separately available comprehensive manuals.



Environment

In order to produce the nitrogen, compressed air treated by the compressed air filters is used. These filters are included in every SOTEX Nitromat nitrogen generator. After all, the compressed air must be clean and dry for the benefit of the nitrogen producing system. The residual product of this filtering is mainly condensed water, which also contains dust and oil particles and is therefore harmful to the environment. However, SOTEX has always been mindful of the environment. Therefore, this condensate is drained using an oil/water separator (always included with the nitrogen expansion system). In this separator, the oil is absorbed by the presence of activated carbon. This activated carbon must be replaced periodically. Consequently, the water that is drained remains clean and can be drained into the sewage system.



■ SOTEX provides every nitrogen expansion system with a matching **vacuum/overpressure control valve**. This is an additional safety device that protects the precious vertical heat storage tank against undesired underpressure or overpressure situations (DN80 t/m DN300).

Optional

The SOTEX nitrogen expansion systems can optionally be expanded with the following options:

■ SOTEX protective cap for vacuum / overpressure control valves

This is a customised protective cover that can be placed over the vacuum / over-pressure control valve. The SOTEX plastisol protective cover reduces the risk of freezing. However, it by no means guarantees 100% frost-free condition and therefore, SOTEX provides no guarantee. However, it is an important tool.

■ SOTEX for use on two and / or three vertical storage tanks

Normally, the SOTEX nitrogen expansion system operates on a single vertical storage tank. If there are two or three vertical storage tanks, you can of course opt for two or three separate nitrogen expansion systems. However, SOTEX offers a better solution, the type DUO or TRIO; a single nitrogen expansion system suitable for operating on multiple vertical storage tanks. The SOTEX control panel with SIEMENS PLC is equipped with a 7 "multi-color touch display that can display the data of multiple vertical storage tanks and the SOTEX Nitromat nitrogen generator has two or three nitrogen supply valves.

■ SOTEX continuous electronic nitrogen purity measurement

If desired, the SOTEX Nitromat nitrogen generator can be equipped with a sensor incorporated into the control panel, which continuously monitors the quality of the nitrogen from the nitrogen storage tank. The measured purity is shown as a percentage on the display of the control panel.

■ SOTEX extra low water protection

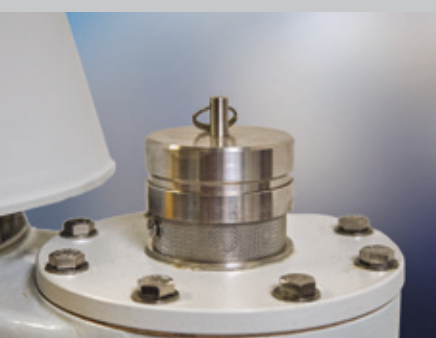
If ordered together, the SOTEX installation will be delivered with an extra mechanical sensor, a kind of tuning fork. We advise to place these at the zero point of the expansion space. The signal goes through the control panel but not through the PLC. Control takes place via a potential-free contact.

■ SOTEX electric frost protection vacuum / overpressure control valve

Optionally, SOTEX can supply the vacuum / pressure relief valve ex factory with an electrically supplied heat ribbon. This minimizes the risk of freezing. Only supplied in combination with the protective cover described on page 6. Highly recommended for projects in very cold countries.

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■ The **mechanical nitrogen relief valve** is part of the vacuum/over-pressure control valve. By opening at 20 mbar, this valve controls the working pressure.



■ Optionally, the vacuum/over-pressure control valve can be equipped with a customised **protective cover**, which can be easily mounted on top of the control valve. This cover protects the control valve against sun and wind.

■ SOTEX electronic level monitoring two vertical storage tanks

Parallel coupling of vertical heat storage tanks often creates the problem that there is an excess of mass in one tank and a shortage of mass in the other tank. The law of communicating vessels is often insufficient (passive return line) due to differences in height of the tanks and / or a too long coupling line. Mass differences due to the transfer of heat from one buffer tank to another is a thing of the past when using the SOTEX TMB-DUO basic.

The SOTEX TMB-DUO basic is an inventive monitoring system that ensures that the mass is maintained in vertical heat storage tanks. We provide voltage-free contacts (max. 10 Amp.) With sensors and an intelligent control unit, with which the rotation speed of the return pump can be controlled after a received release signal. This is a separate control box and is delivered as such.

■ SOTEX network functionality / COM modules

The SIEMENS control system is highly suitable for additional network functionalities. As standard, the nitrogen generator is equipped with a COM module that transmits all signals via the Modbus TCP/IP protocol, allowing the SOTEX control system to communicate on the internal network.

Optionally, a Profinet COM module can be supplied at an additional cost. For more information, please consult SOTEX.

■ SOTEX wooden crate packaging according to ISPM15 regulations

Optionally, SOTEX can supply the installation to be supplied in a robust crate packaging. As standard, SOTEX delivers its installation properly packed on a pallet. It is precisely for your export projects that you can supply the various components in custom-made wooden crates. The wood used is absolutely from the most responsible suppliers and meets the ISPM-15 HT certification and therefore meets all international export requirements in the field of wooden packaging.



■ SOTEX calamity valve 2" is included with every nitrogen expansion system.

Mounted on the top of the vertical heat storage tank, this manual cock will be rarely used. However, in case of an unexpected malfunction, then you can set the pressure control to zero using the controls and easily open the manual ball-valve.

The vertical heat storage tank is atmospheric after opening the ball-valve until you close the ball-valve after the malfunction has been resolved.



■ The SOTEX Nitromat nitrogen generators are characterized, among other things, by a high operational reliability by using the very best materials, such as the high-quality pressure sensor which provides the pressure measurement on the nitrogen storage vessel.



■ Every SOTEX Nitromat Pro generator is equipped with an **oil/water separator**. In this separator the oil is absorbed by the presence of activated carbon.

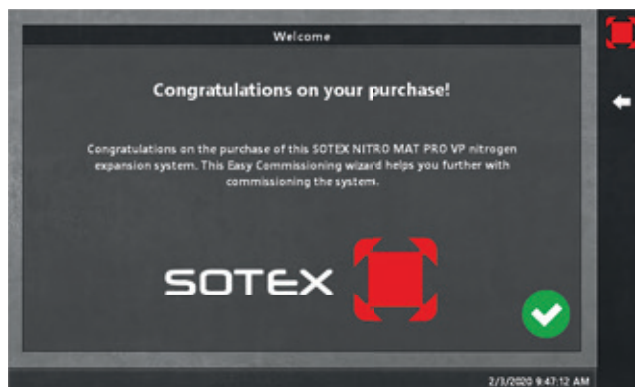
Consequently, the water that is drained remains clean and can be drained into the sewage system. This makes the system environment-friendly.

Easy-commissioning

Unique to the SOTEX Nitromat Pro VP nitrogen system is that it is standard equipped with a so-called **EASY-COMMISSIONING** program. This means that as soon as you have switched on the nitrogen generator, you first go through a special menu, which gives you help with commissioning; a **huge plus** for installers working on foreign projects in particular!



SIEMENS



Start-up screen on Nitromat Pro VP 7" Touchscreen

The switch panel of the SOTEX Nitromat Pro nitrogen generator is equipped with a **SIEMENS S7 PLC** in combination with a **multi-colored 7" touchscreen LCD display**. In the event of a possible malfunction, the display will indicate the malfunction and turn red.

The switch panels are also completely developed and built in our own factory.

The supply voltage is always 1x 230 Volt 50 Hz. When the installation is installed in countries with a **different voltage**, SOTEX supplies a special 'transformer box'. This separate panel needs to be placed nearby the nitrogen generator and converts the special voltage to the supply voltage of the switch panel.

In this menu you will be asked a number of important questions and you will be provided with the most relevant information by means of a clear textual explanation and where possible supported with sample images. The unique program helps you to set up, connect and adjust the SOTEX nitrogen expansion system flawlessly. As soon as you are done with this, the nitrogen expansion system will start up completely by itself, so you don't have to do anything anymore. Of course there is also a clear reference book available in the form of the supplied installation and user manual, more about this at the bottom of this page.



Each SOTEX nitrogen expansion system comes with a clear **installation and user manual**.

This manual - available in multiple languages - is located in the switch panel and provides step-by-step instructions to the installer and / or user. The explanation is supported by clear drawings and color examples.

Quality and reliability

The SOTEX nitrogen expansion system is characterized by quality and reliability. All systems undergo an extensive final test before delivery; the compressor is extensively tested for achieving capacity and final pressure. The capacity of the nitrogen generator adjusted and checked using a digital flow meter. The nitrogen purity is of course adjusted and measured with a calibrated residual oxygen meter.

Nevertheless, a defect or malfunction can always occur. It is very important that you can count on adequate service provision at that time. SOTEX finds service and accessibility very important.

Our 24-hour service department is continuously available to advise and assist you. Faults or defects are solved quickly and professionally by our own technicians. So also at night, on weekends and during holidays. A matter of course for us, extremely important and pleasant for you!

Maintenance

In addition to the service provision, SOTEX also provides the necessary maintenance. Contractual maintenance is of course the biggest recommendation, but even without a contract you can contact SOTEX for the necessary maintenance.

The operating hours are usually decisive for the intervals, but the practical situation is also considered, such as external influences such as air pollution, ambient temperature, etc., but also the number of start and stop times, for example, play an important role. Contractual maintenance is not limited to the border, but takes place in many countries around the world. Ask for the possibilities!



■ This **pressure switch** protects the nitrogen generator from an **undesirably low pressure**.

This includes a connection point for clean and dry compressed air which, after agreement with SOTEX, can be used for external, small compressed air consumers.

SOTEX provides service and maintenance for nitrogen generators, expansion breakers, compressors and compressed air system.

SOTEX, as well as its service technicians, are VCA-certified*.

(i.a. certified to work safely)



■ SOTEX Nitromat Pro VP17



■ The **compressed air filters** of the SOTEX Nitromat Pro nitrogen generators are very effective and reliable. The condensate to be collected is discharged to the oil / water separator included in each Nitromat Pro nitrogen generator.





NITROGEN GENERATORS

TYPE NITROGEN GENERATOR	ELECTRICAL CONNECTION	FREQUENCY	DIMENSIONS W x D x H	WEIGHT	CAPACITY @ 9,5 BAR	MAX. FUSE	WORK PRESS.	REST PERCENTAGE O ₂	COMPR. AIR NEEDED @ 10 BAR
	Volt	Hz	mm	kg	Nm ³ /hr	Amp		%	m ³ /hour
Nitromat Pro VP2	1x 230	50/60	850 x 750 x 1700	152	2	16	15 mbar	1	8
Nitromat Pro VP4	1x 230	50/60	855 x 750 x 1700	173	4				10
Nitromat Pro VP7	1x 230	50/60	900 x 750 x 1700	200	7				19
Nitromat Pro VP11	1x 230	50/60	900 x 750 x 1700	253	11				29
Nitromat Pro VP17	1x 230	50/60	980 x 750 x 1800	329	17				45
Nitromat Pro VP20	1x 230	50/60	980 x 750 x 2000	371	20				50
Nitromat Pro VP26	1x 230	50/60	1200 x 760 x 2100	608	26	16	1 bar	1	65
Nitromat Pro HP4	1x 230	50/60	855 x 750 x 1700	173	4				
Nitromat Pro HP7	1x 230	50/60	900 x 750 x 1700	200	7				
Nitromat Pro HP11	1x 230	50/60	900 x 750 x 1700	253	11				
Nitromat Pro HP17	1x 230	50/60	980 x 750 x 1800	329	17				
Nitromat Pro HP20	1x 230	50/60	980 x 750 x 2000	371	20				
Nitromat Pro HP26	1x 230	50/60	1200 x 760 x 2100	608	26				

| design pressure 11 bar(g) | design temperature 20 °Celsius | max. working pressure in N₂ storage vessel 8 bar(g) | CE approval | in accordance UL / CSA | DUO + 2 kg | TRIO + 5 kg |

* = optional connection voltage is possible. For this purpose, a so-called transformer box is supplied separately with the Nitromat Pro nitrogen generator. This transformer box makes it possible to electrically connect the Nitromat Pro nitrogen generator to the project. The control box of the nitrogen generator can optionally be supplied with ULC certification (North America) at an additional cost. Ask us about the possibilities.



■ The BOGE base control basic machine system offers an **automatic frost protection** mode and the BOGE leakage monitor as standard. Operating parameters and statuses are displayed on the main screen of the LCD display – supported by clear symbols. The zero-voltage protection function and the **automatic restart** function after power failure are configurable.

■ Condensation forms during the production of compressed air. Most of the **condensate** is collected in the compressed air receiver located beneath the screw compressor. The compressors supplied by SOTEX are **user-friendly** and are therefore equipped with a fully **automatic electronic drain** that discharges the condensate to the oil/water separator.



WEIGHT	RECEI- VER	ELECTRIC CONN.	CAPACITY (FAD)	DIMEN- SIONS WxDxH	MOTOR	TYPE COMPRESSOR		
kg	liter	Volt	m³/hour	mm	kW			
10 BAR - 50 HZ								
155	90	3X 400	14,0	1185 x 550 x 1010	2,2	CE PED 2014/68/EU	Standard with a Sotex nitrogen expansion system	BOGE C3LR-90 type Nitro incl. automatic condens relief valve
160			18,7		3,0			BOGE C4LR-90 type Nitro incl. automatic condens relief valve
175			32,2		4,0			BOGE C5LR-90 type Nitro incl. automatic condens relief valve
180	160		42,4	5,5	BOGE C7LR-90 type Nitro incl. automatic condens relief valve			
255		61,8	7,5	BOGE C10LR-160 type Nitro incl. automatic condens relief valve				
265		104,4	11,0	BOGE C15LR-160 type Nitro incl. automatic condens relief valve				
275		133,2	15,0	BOGE C20LR-160 type Nitro incl. automatic condens relief valve				
10 BAR - 60 HZ								
180	200	3x 208/440 480/575 60 Hz	16,6	1430 x 665 x 1260	2,2	UL / CSA / ASME	For Mexico, Canada and USA	ATLAS COPCO G2-10TRI type Nitro incl. automatic condens relief valve
190			30,6		4,0			ATLAS COPCO G4-10TRI type Nitro incl. automatic condens relief valve
200			44,3		5,5			ATLAS COPCO G5-10TRI type Nitro incl. automatic condens relief valve
210	58,0		7,5	ATLAS COPCO G7-10TRI type Nitro incl. automatic condens relief valve				
245	270	64,9	1533 x 590 x 1332	7,5	ATLAS COPCO G7EL-10 type Nitro incl. a automatic condens relief valve			
257		86,5		11	ATLAS COPCO G11EL-10 type Nitro incl. automatic condens relief valve			
276		104,8		15	ATLAS COPCO G15EL-10 type Nitro incl. automatic condens relief valve			

COMPRESSORS

The compressors

On page 5, you could read everything about compressed air. SOTEX works primarily with compressors from the **Boge** brand, known for their efficient and sustainable compressed air solutions. These screw compressors distinguish themselves through advanced technology, high efficiency, and reliable long-term operation.

In addition, we also supply compressors from **Atlas Copco**. In our quotations, we always state the preferred brand, indicating that we can offer an equivalent alternative if desired or necessary. This gives us more flexibility, particularly regarding delivery times.

Naturally, you can always let us know your preference for a specific brand, so that we can take this into account as much as possible.



■ **Boge screw compressor C-LR series 'Nitro'**
[standard delivered with a Sotex system]

The **BOGE C - LR series** compressors are compact, highly efficient, and exceptionally quiet screw compressors, fully mounted on a compressed air tank. Thanks to the integrated design with internal piping, pressure losses are minimized and reliability is maximized.

Benefits at a glance:

- Very energy-efficient
- Compact and space-saving design
- Exceptionally quiet operation
- Reliable for continuous use
- Quick and easy to maintain
- Low operating costs
- Intelligent machine control included as standard

For standard maintenance, SOTEX supplies carefully composed maintenance packages with original parts.

Each package is provided with clear maintenance instructions. For more information, please contact our service department.





WEIGHT	DIMENSIONS				MAX. PRESSURE	CONTENT	VESSEL TYPE		
kg	diameter x hoogte in mm				bar	liter			
120	Ø	600	x	2060	11,0	500	Standard choice, European approval. Delivery including accessory set.	CE PED 98/4040	SBV11-500
167	Ø	790	x	2160		900			SBV11-900
196	Ø	790	x	2345	11,5	1000		CE PED 2014/68/EU [opt. SELO]	SBV11-1000
397	Ø	1000	x	2805		2000			SBV11-2000
542	Ø	1200	x	2965		3000			SBV11-3000
729	Ø	1450	x	3070		4000			SBV11-4000
855	Ø	1450	x	3570		5000			SBV11-5000
982	Ø	1450	x	4070		6000			SBV11-6000
1326	Ø	1650	x	4135		8000			SBV11-8000
1657	Ø	1650	x	5135		10000			SBV11-10000
140	Ø	600	x	2060	11,0	500	For projects in Canada en U.S.A. Delivery including accessory set.	ASME U-stamp	SBV11-500 ASME
186	Ø	790	x	2160		900			SBV11-900 ASME
223	Ø	790	x	2345	11,5	1000			SBV11-1000 ASME
415	Ø	1000	x	2805		2000			SBV11-2000 ASME
570	Ø	1200	x	2965		3000			SBV11-3000 ASME
756	Ø	1450	x	3070		4000			SBV11-4000 ASME
880	Ø	1450	x	3570		5000			SBV11-5000 ASME
1015	Ø	1450	x	4070		6000			SBV11-6000 ASME
1487	Ø	1650	x	4135		8000			SBV11-8000 ASME
1748	Ø	1650	x	5134		10000			SBV11-10000 ASME

NITROGEN STORAGE VESSELS

■ optionally the vessels are also available with a SELO certificate for the Chinese market. Data equal to CE vessels.



■ The corresponding appendages are supplied with each nitrogen storage vessel.

This includes a pressure gauge, caps, valves and pressure relief valve.



■ Two extremely reliable pressure sensors are supplied for measurements on the vertical heat storage tank.

The sensor that measures the content is placed in the side wall of the tank and the sensor that measures the pressure of the nitrogen cushion is placed on the roof.

■ Typical setup of the complete SOTEX nitrogen expansion system. From left to right, first the screw compressor, then the Nitromat Pro nitrogen generator and then the nitrogen storage vessel.



■ The sensors are standard delivered with a removable **PVC protective cap** as shown in the photos opposite. These protective caps largely prevent the worst weather influences, ensuring reliable operation. It will never be an absolute guarantee against freezing. There are options for this with electrically supplied tracing cable.

**MADE IN
HOLLAND**



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Models and specifications mentioned in this catalog are subject to change without notice.