

Translation of the Original Operating Instructions

Vetter Connectable Bags

VCB and VCB N C.Tec 12 bar (174 psi)



Keep in a safe place for future use!



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1. Important preliminary remarks

Only the knowledge and exact observance of these operating instructions guarantees correct and professional operation, produces the greatest possible use and ensures any claims made within the scope of the Vetter guarantee.

The handling of the Vetter VCB C.Tec (Vetter Connectable Bags - Connectable Technology) is only to be made by trained persons using the operating instructions of the manufacturer and the information from the user.

In addition to the operating instructions, all national, generally applicable, statutory and other binding accident prevention regulations must be observed and instructed.

The disposal of discarded lifting bags is to be carried out according to disposal regulations valid for the region.

The operating instructions given here are to be regarded as part of the product and are to be kept for the complete life duration of the product. In case the product should be passed on to a successive user then the operating instructions must also be included.

2. Product description

2.1 Description of the set

a. C.Tec Bag 12 bar (174 psi)

The selection of bag size must correspond to operation requirements. There are 3 sizes available from 30 t, 75 t and 172 t.

b. Connecting pins

By using the connecting pins, all bag sizes of the C.Tec series can be connected to each other to form a lifting system comprising max. three bags.

This pin has been designed so that the bags can only be connected from one position. This ensures that the hose connections of the individual bags are always perpendicular to each other and that no hoses are unintentionally under the load. This increases the safety factor for the operator many times over, see chapter 3.2.

c. Inflation hoses

In order to inflate C.Tec Bags 12 bar from a safe position for the operator, there are inflation hoses available with lengths of 5 m and 10 m. The hose colours are used exclusively to assist the operator in recognizing the correct side when controlling the C.Tec Bags 12 bar.



d. Controller 12 bar

When filling and deflating of the bags, the manometer and the load must be observed.



Air CU (Control Unit) 12 bar deadman

Connect the inflation hoses on the output couplings on the rear side of the controller. Connect the air supply to the input coupling on the side. Move the switching lever towards you in order to inflate the C.Tec Bag. In doing this, observe the corresponding manometer and the movement of the load. When the required operating pressure for the lifting power or lift height is reached, terminate the inflation sequence by releasing the lever. Latest when the safety valve blows off or the red marking is reached! The switching lever automatically returns back to the zero position (dead-man switching). The integrated safety valve activates automatically as soon as the maximum operating pressure of 12 bar is exceeded when inflating or when there is a sudden increase in bag pressure caused by an unintended loading of the bag.

The activation tolerance for opening and closing of the safety valve must only be a maximum of +/- 10%.

Press the switching lever in the opposite direction in order to deflate the bag or to lower the load.

The lighting of the control element illuminates all couplings, switch levers and manometers. It is switched on and off with switch (1) on the side.

The control element is supplied by a 9 V block battery. Since the entire lifting bag system is designed for a temperature range of -20 °C to +55 °C, only batteries with this temperature range are allowed to be used. Based on the current state of the art, only lithium batteries meet this requirement.

To insert the battery, unscrew the battery compartment, replace the old battery with a new one and screw the battery compartment back together.

Control elements with lighting come under the German Law on electrical and electronic devices (ElektroG) of 24 March 2005 for implementation of the EC Directive 2002/96/EC on electrical and electronic waste – WEEE Directive.

The label attached to the battery compartment cover points out that the electronic components in this product must not be handled as domestic waste; they have to be returned to the manufacturer (return freight paid) for recycling.



Different couplings!



Dual deadman controller 12 bar / 174 psi, aluminium style, connectable

Connect the filling hose to the outlet couplings (4) on the rear of the control element. Connect the air supply to the lateral inlet coupling (1). To fill the VCB C.Tec Bags press the lower "+" push-button (2). When the desired operating pressure has been reached for the lift force or lift height, discontinue the filling process by releasing the push-button. Release latest when the safety valve blows off or the red marking has been reached! During this process, the push-button independently returns to the zero setting (deadman switch). If you overfill the bags past the maximum operating pressure of 12 bar or if there is an unexpected additional load on the bag, the integrated safety valve automatically blows off.

The activation tolerance for opening and closing of the safety valve must only be a maximum of +/- 10 %.

To drain the bag or lower the load, press the upper "-" push-button (3).

To prevent long-term damage of the membranes in the interior, vent the control element after use. To vent, first press all push-buttons (+ / -) one time.

Connecting and disconnecting two double control elements

To link, connect the nipple (5) of the left control element with the inlet coupling (1) of the next control element. Swivel the transom (7) on the rear of the right control element to the side of the left control element and screw it tight with the star screws (6).

The control elements are now connected and will be supplied with compressed air through the inlet coupling of the left control element.

Before separating, disconnect the air supply connection and depressurise the control element by pressing the push-buttons.

Note:

Do not separate the control elements as long as the bags are connected.

Loosen the star screws on the rear and swivel the transom back into place. Press both control elements together, pull back the union nut of the inlet coupling of the right control element and then let go of both control elements. The control elements are now disconnected.

If the transom and the star screws are not going to remain on the control element, keep them together in a bag.





Protective cap VCB N



Protective cap VCB

e. Protective cap


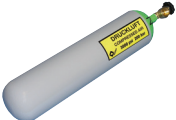
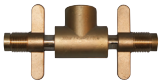


To protect the load plate and the adhesive rubber against damage, the Vetter protective cap must be used every time the C.Tec lifting bags are used. The protective cap also increases the friction between the load plate and the ground or the load plate and the load to be lifted. This reduces the risk of the lifting bag being thrown out and the load plate and the adhesive rubber being damaged.



Inventory check

On acceptance of the C.Tec Bag equipment a check is to be made to see if the delivery is complete according to the delivery note. In addition to this a visual check and function test is to be made according to the operating instructions.

2.2 Other accessories

Pos.	Artikel-Nr.	Bezeichnung	
1	1600034000 or 1600032000	Pressure regulator 200/300 bar US Version 4500 psi (not compatible with below mentioned compressed air bottles)	
2	1600010800	Comp. air bottle 6 l / 300 bar	
3	1600019900	Comp. air bottle 9 l / 300 bar	
4	1600009100	Dual connector 300 bar	
5	1600014500	Pressure regulator	
6	1600012000	Adapter for construction site compressor	

7 1200008800 **Connecting pin VCB N**



8 1000012500 **Valise VCB N 30**

9 1000012600 **Valise VCB N 75**

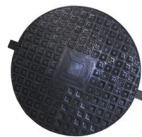


10 1000012700 **Valise VCB 172**

11 1200009700 **Protective cap VCB N 30**



12 1200009800 **Protective cap VCB N 75**



13 1000012700 **Protective cap VCB 172**

2.3 Vetter safety coupling system

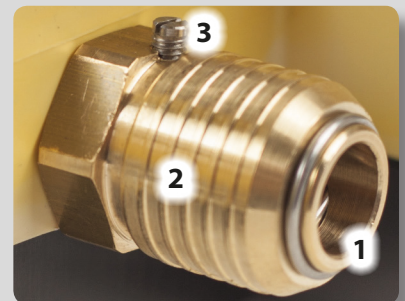
The S.Tec and C.Tec series are provided with the same coupling system. That means Vetter 12 bar accessories can be used for both bag series.

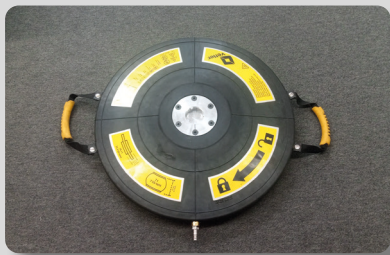
a. Input coupling of the controller

Connect the air supply hose or the connection hose of the pressure regulator to the nipple of the input coupling (1) on the controller pushing the nipple solidly into the coupling until the ratchet action can be felt. In order to ensure that it is correctly connected: turn the brass sleeve (2) of the coupling opposite to the safety pin (3).

b. Couplings of the inflation hose

To connect the inflation hoses to the corresponding controller or to the C.Tec Bag, press the hoses or bag nipple solidly into the coupling until the ratchet action can be felt. The coupling sleeve must be seated on the support ring without any gap (1). To release the connection (only in the pressure-free condition) the nipple must be solidly pressed against the spring pressure in the coupling. At the same time the coupling sleeve must be pushed back. The coupling then releases.





c. Inflation with an 8 bar or 10 bar inflation device

The C.Tec 12 safety coupling system facilitates filling the pad with the Vetter 8 bar or 10 bar system. However, do this only in exceptional cases since in such a case the pad cannot lift with its entire lifting force.

2.4 Product description

VCB C.Tec Bags are made by hand from high quality raw materials so that after completion, a seamless bag is produced. The semi-finished product is vulcanized under the influence of pressure and temperature and by doing this the individual layers bond to form an elastomer body. After production has been finalized, each C.Tec Bag is subjected to a plant acceptance test within the scope of quality assurance.

Material of the C.Tec Bag: CR/Aramide, hot vulcanized

Small folds form in the edge area during the filling process. That is attributable to the setup and the design but does not impair the functioning. They disappear as the pressure builds up to the permissible operating pressure.

Temperature resistance of C.Tec Bags:

Cold resistance	-40 °C
Cold flexible	-20 °C
Heat resistance long-term	+55 °C
Heat resistance short-term	+70 °C

The aramid reinforcement of the C.Tec bags can be damaged if the surface of the bag is damaged by cuts, cracks or puncturing and by the exposure to ozone and sunlight.



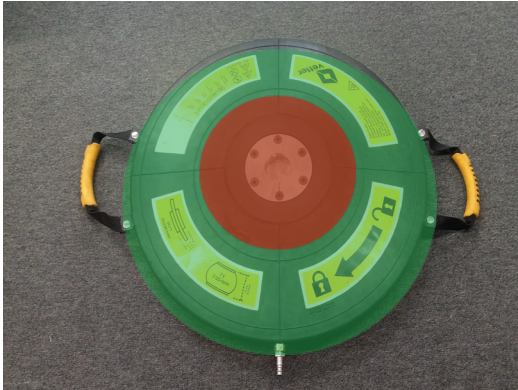
Perform a visual inspection after each use. Pay particular attention to the following damage:

- ✓ Damage by separation
- ✓ Damage by cuts
- ✓ Damage by punctures
- ✓ Damage by heat and chemicals

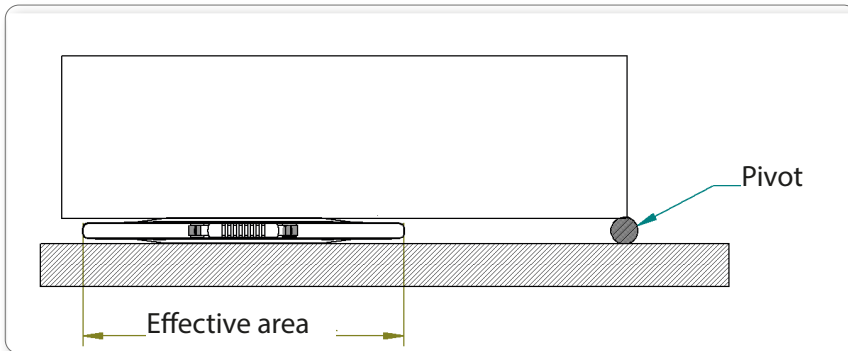
Danger of bursting! If, when carrying out the check, this type of damage is determined then the bag is to be immediately taken out of service. Repair is not possible.



During the lifting process, at least 2/3 (red area) must be fully inserted under the load. In order to use the theoretical maximum lifting force, the entire effective area (red + green area) must be fully underneath the load to be lifted and pressure must be applied to the lifting bag with the max. permissible operating pressure.



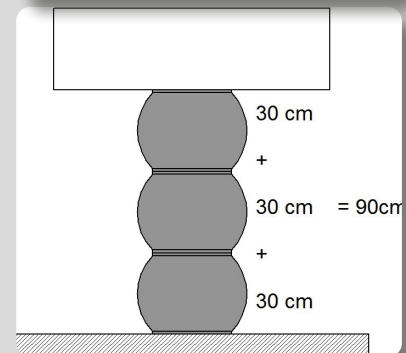
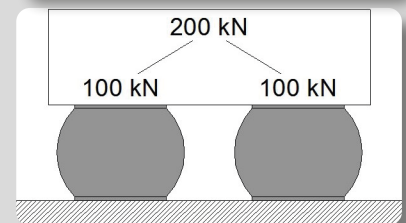
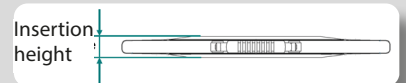
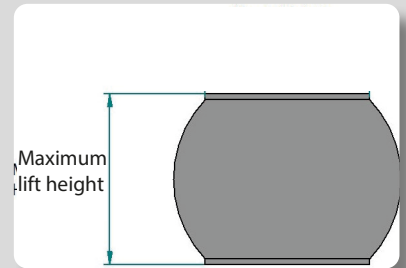
With increasing height, the lifting bag takes on a flattened spherical shape; under certain circumstances the load will rotate around a pivot point due to a one-sided lifting process. That reduces the contact area to the load up to the predefined final lifting force at a defined lift height. The lifting bag only reaches the greatest possible lifting height in the unloaded state.



Pay attention to the insertion height before use. Under certain circumstances, the load first has to be lifted with a flat lifting bag until there is a sufficiently large opening.

In case the lifting power produced by the C.Tec Bag is not sufficient, depending on the lift height, then a number of C.Tec Bags can be placed next to each other. The lifting capacity doubles.

In case the lifting height is not sufficient when using only one C.Tec bag, a maximum of 3 bags can be connected to form a lifting system using the connecting pins when the load is non-slip. In this application, the respective lifting heights of the C.Tec bags used add up. However, the lifting force corresponds only with that of the smaller bag.



For safety-engineering reasons however only the following combinations can be braced into a lifting system:



Combination 1	Combination 2	Combination 3
<p>Max. three bags of the same size</p>	<p>One small bag on two bags of the same size</p> <p>One VCB N 30 on two VCB N 75's, one VCB N 75 on two VCB 172's</p>	<p>Three bags of different sizes</p> <p>The stack is built up from the largest bag at the bottom to the smallest at the top.</p>

Combination 1 provides the greatest safety and stability and should be preferred over Combination 2 and 3. Combination 2 is preferable to Combination 3!

Never use the following combinations:

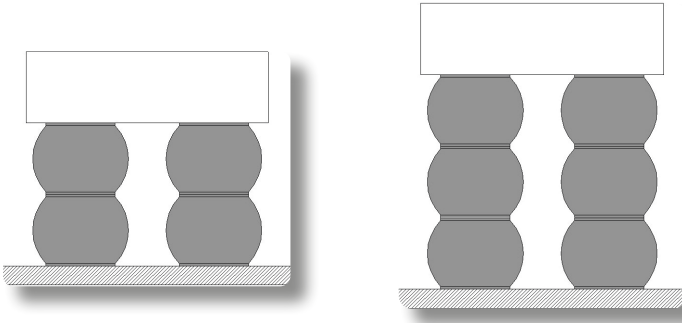


Combination 1	Combination 2	Combination 3
<p>A smaller bag <u>under</u> a larger bag</p>	<p>A lifting bag system made of more than three bags</p>	<p>Two bags of the same size on one larger bag</p>

The user must be aware of these combinations. They must be taken into account during deployment!



If the rendered lifting height of a stack of C.Tec bags is not sufficient depending on the double or triple lifting height, it is possible to place two lifting systems next to each other:



Never position 4 or more bags on top of each other!



An C.Tec Bag under load can be compared to a spring under tension with respect to its behaviour. As soon as the C.Tec Bag is suddenly released, e.g. by slipping, load break or anything similar then there will be spontaneous catapulting outwards of the C.Tec Bag.

**Never stand in front of the C.Tec Bag!
This is an area of danger!**



When filling the bags of a lifting system, always comply with the following sequence:

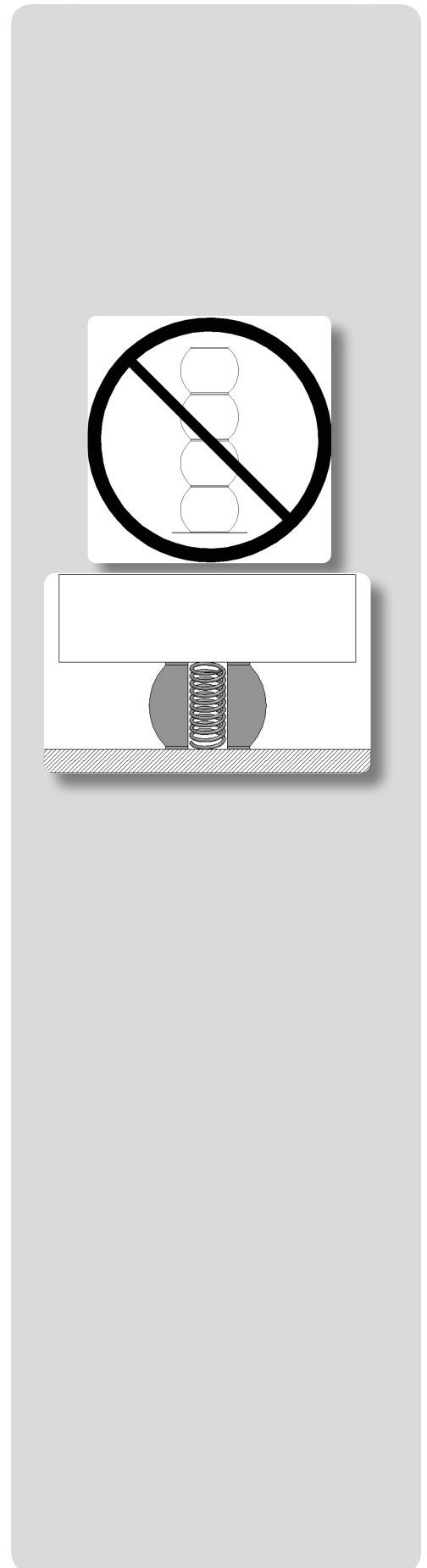
1. Fill the top bag to 5 bar
2. Fill the centre bag to 5 bar
3. Fill the bottom bag to 5 bar

You can then increase the operating pressure to the max. as desired. However, since the top bag adapts to the load on the contour, this bag must always have the highest pressure.

Evacuate in the reverse sequence.

1. Completely evacuate the bottom bag
2. Completely evacuate the centre bag
3. Completely evacuate the top bag

The Aramid installed in the bag only forms a fixed fibre level at approx. 5 bar. For that reason, even if using another filling technique, always fill the bag to at least 5 bar before filling the next bag.



2.5 Correct usage

Above all, C.Tec bags are a pneumatically-driven rescue device that can be connected into a lifting system for the rescue services (e.g. fire brigade) and can be used to free trapped persons, create escape and access routes and undertake similar measures. Furthermore, the C.Tec bags can also be used as work equipment for lifting or moving loads. Lifting heights of up to 2 m can be reached by connecting the bags into a lifting system.

C.Tec bags in the fire-fighting sector underlie the national requirements, DIN EN 13731. Further instruction information can be obtained from the operating instructions of the user. The complete S.Tec system is cold-resistant to -20 °C and heat-resistant up to +55 °C.

2.6 Safety instructions

Pre-specified personal protective clothing is to be worn during operation! For example: protective clothing, safety footwear, helmet, protective gloves, protection for eyes and face, noise protection etc.

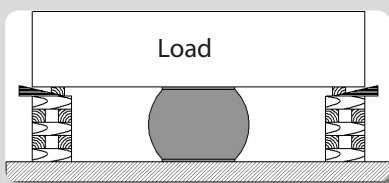
The national regulations in connection with lifting bag systems and their use are to be observed. For example: DIN EN 13731, national regulations. The C.Tec Bags are only to be used with compressed air, under no circumstances are they to be used with inflammable gases or aggressively acting gases. VCB C.Tec Bags are only to be inflated with original Vetter C.Tec inflation fittings because these were subjected to an acceptance test by the manufacturer. The lifting bag system is to be tested for perfect condition before and after use (specifications from the manufacturer, national regulations).

The national safety guidelines must be observed and adhered to worldwide.

In the Federal Republic of Germany, for example, regular safety inspections are prescribed by DGUV Principle 305-002.

Continuously shore up the lifted load with friction while the lifting process is progressing, secure it against slipping away and, e.g., stabilise with supports. The stable condition of foundation support material must always be observed during construction of the foundation support. Use only materials that are suitable for the load to be lifted such as shoring sets made of wood or plastic or wooden beams, etc. While doing so, be sure to comply with the max. permitted load bearing capacity of the materials.

In order to fully use the strengths of the S.Tec Bag, the distance between load and bag should be at a minimum.



The foundation support must brace at least the complete area of the bag and the smallest edge length of the foundation support must be larger than the height of the foundation support. Metal must never be place on metal! Attention: danger of slipping!



In case of slippery ground (ice, snow, clay, etc.) or coarse gravel, place the Vetter protective cap or other anti-slip materials under the bag to increase the ground adhesion.

Point-shaped loads are to be avoided, e.g. construction claws or screws. Never place the bags on sharp edges, hot or red hot components. Use suitable temporary storages and cover the complete contact area of the bag. Protect the bag against flying sparks during welding or separation work. Do not additionally load bags with such things as hydraulic lifting devices, winches or falling loads.

**Never remain beneath a lifted load, never hold the load from below!
Remain at a distance!**



Avoid shearing effects by squeezing of the bag when lowering the load!

During operation never stand in front of the bag but always to one side, because the bag could catapult outwards under unfavourable conditions!



Additional instruction:

Limit the number of persons in the hazardous area to a minimum. People who are not involved must stay outside of the hazardous area. Also provide sufficient clearance to the load to be lifted and to the debris area.



Monitor the load during the entire lifting process and, if necessary, abort and correct as dictated by the circumstances.

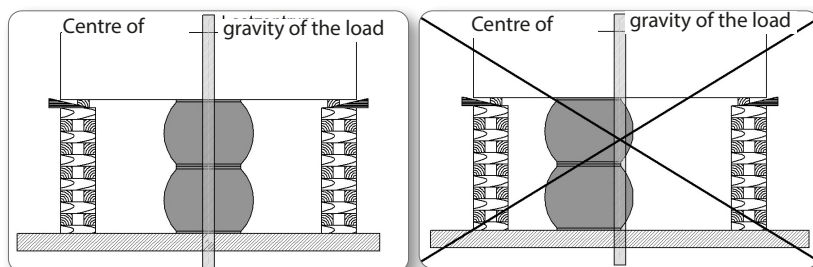


Aborting the lifting process:

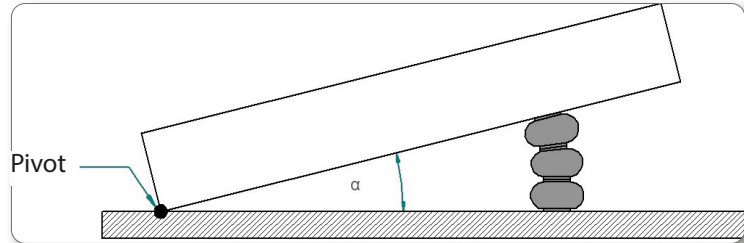
1. Secure the load
2. Evacuate the bag
3. Reposition the bag

Make sure that

- ✓ there are no malfunctions
- ✓ the bags do not move out of the centre of gravity of the load



- ✓ the max. tilt angle is not exceeded
Angle α must never exceed 45°. Otherwise, the bags could be flung out!



- ✓ the top head plate cannot move out of the stroke centre which is defined by the bottom plate; otherwise the bags could uncontrollably fling out

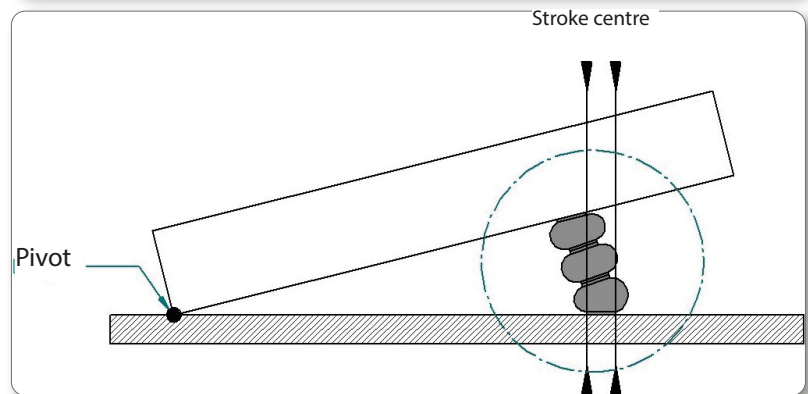
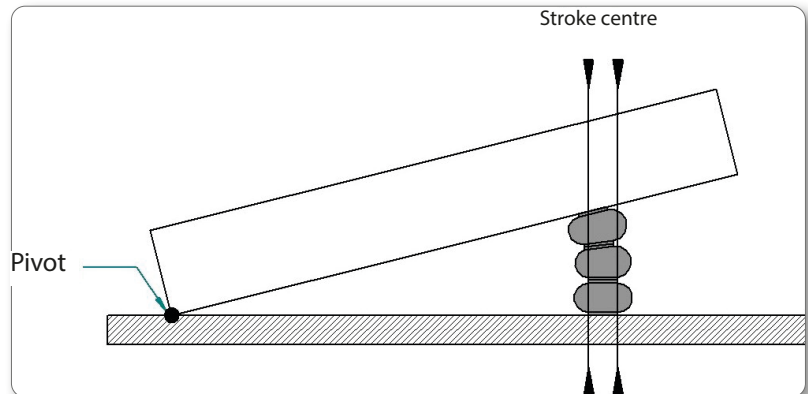
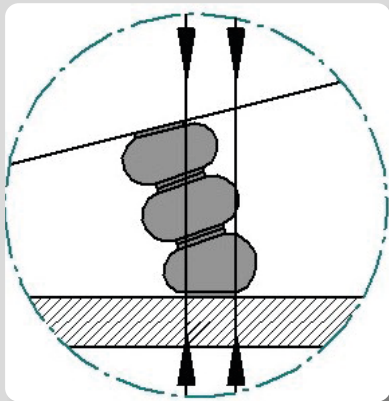


Plate outside the stroke centre



A C.Tec Bag can burst under adverse conditions with incorrect operation, incorrect handling or by manipulation on the controller and/or inflation hose (problems concerning pressure waves and sound waves, uncontrolled movement)!

Vetter C.Tec Bags are not suited for use in explosion endangered zones!



3. Preparing the product for use

3.1 Preparations for operation

Remove a set of C.Tec bags from the vehicle and perform a visual inspection. Prepare the inflation device. Ensure that sufficient air supply is available.

Only perfectly working and tested S.Tec Bag systems are to be used!



Since there is no standard set, in the scope of his responsibility the respective commanding officer decides on the deployment method while following the standard deployment rules and the operating organisation's operational directives.

These operating instructions impart the basic handling of the bag system so they can only be used as the basis for previously trained and correspondingly qualified personnel in action.

To reduce the hazards to a minimum and preventing accidents, the commanding officer should make a short risk assessment together with the operators before each use. This will create safety when handling the lifting bags during use in the respective situation.

3.2 Connecting the bags

In order to be able to connect max. 3 bags with each other, a special bayonet system has been developed. This allows 2 bags to be joined together without tools using a connecting pin, regardless of their size. At the same time, the bags can only be joined in one position due to the arrangement or position of the nipples and grooves. This ensures that the air connections are always vertical to each other in a lifting system.

Use a lifting system only if all valve connections are arranged vertically on top of each other.

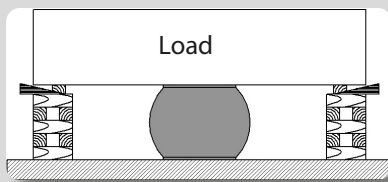


1. Insert the connecting pin into the lower bag so that the markings on the connecting plate and the connecting pin are aligned. It does not matter which side of the connecting pin is used. The arrangement of the nipples is the same on both sides. Now turn the pin clockwise or in the direction of the arrow until it makes contact with the end stop and is locked in place.



2. Then place the upper bag on the connecting pin already mounted. The valve of the upper bag must be positioned vertically to the open lock of the lower bag. The nipple of the connecting pin must be engaged in the bag. Now turn the upper bag clockwise until it makes contact with the end stop and the air connections of both bags are vertical to each other.

To prevent the connection from loosening in use, the connection parts are manufactured to fit precisely. To make it easier to close or open the connection, grasp both bags at the outer edge while turning the upper bag.



3.3 Application instructions

Push in the C.Tec bags at a suitable point completely under the load. Use friction to continuously prop up, support and/or secure the lifted load against slipping away while the lifting process progresses.

Never stand in front of the bag during operation but to the side of the C.Tec Bag because it could be catapulted outwards under unfavourable conditions.

4. Operating instructions

4.1 Operation with compressed bottles

When using connected lifting bags, keep a sufficient number of compressed-air bottles ready.



Connect the pressure reducer to the compressed air bottle 200 bar or 300 bar using the tommy screw (1). Close the hand wheel of the pressure reducer (2). Open the valve on the bottle (3) slowly. The pre-pressure manometer (4) indicates the pressure in the bottle.

Adjust the back pressure to approximately 14 bar with the regulation bar (5) (indication of the reduced pressure on the back pressure manometer (6)).

Connect the air hose of the pressure reducer via the nipple to the input coupling (7) of the controller. In doing this, press the nipple into the coupling until you feel it lock in. For additional safety: turn the brass sleeve (8) so that it is opposite the safety pin (9).

Open the hand wheel (2) of the pressure reducer.

The lifting bag system is ready for operation.



4.2 Operation with other sources of compressed air

Basically, every source of air available can be used for operation of the C.Tec Bags 12 bar as long as the pressure does not exceed 14 bar and that the air is free of oil as far as possible. Amongst others, the set of transition pieces (Art. No.: 1600 0125 01) with the following adapters are available for operation with other air sources:



1. Truck compressed air connection, dual brake system.
For tapping air out of the trailer coupling head.
2. Dummy coupling
Seals off the control line of the brake system

Remember! Ensure that the truck does not roll, use brake blocks!

3. Truck tyre inflation device adapter
For tapping off air from the so-called tyre inflation bottle near the brake.

Remember! The tyre inflation connection must be ensured by a safety valve as a standard!

4. Truck tyre valve
Inflation with a normal hand or foot pump as well as other air supplies for tyre inflation.
5. Truck tyre valve connection, can be clamped
For extracting air for the spare tyre.
6. Adapter for the local air pressure network.
7. Adapter Construction-site compressor
8. Air supply hose, 10 m, green, with blocking valve.
9. Case, red

4.3 Dismantling of the lifting bag system after use

Dismantling of the lifting bag system is carried out after ensuring the lifted load and complete deflation of the lifting bag system, including dismantling of all accessory parts in the reverse order.

4.4 Limit for the period of use

Since there is no duty to discard lifting bags (as, e.g., there is for rescue cushions), we recommend discarding the lifting bags at the latest after 18 years if they are deployed and stored properly and are regularly inspected.

4.5 Care, maintenance

The lifting bag equipment must be cleaned and checked for damage after each operation. Cleaning is normally carried out with warm water and a detergent. Note that the connecting parts must always be free of contamination. Otherwise, when connecting the bags, the mechanism cannot engage completely and safe use is no longer guaranteed. The grooves can be cleaned with a brush and blown free with compressed air.

Never clean with chemical cleansing agents and never clean with high-pressure hot-water equipment.



Drying is to be made at normal room temperature.

A bag is to be immediately discarded if, during inspection, any sign of damage is established (refer to Page 7). It is not possible to repair the bags. If the bolted plate, bolts or handles are damaged, replacement is possible but solely **by the manufacturer**. However, sharp edges or notches can be machined with a file.

If needed, components such as manometers, safety valves and piston valves can be exchanged. Hose couplings and nipples can also be exchanged.

After necessary repair, the equipment is to be checked according to the repetitive testes. This special test is also to be documented.

To provide the best possible protection of the bags during long-term storage, comply with the following points in DIN 7716.

- ✓ Evacuate the bags and store depressurised
- ✓ Horizontal storage in the Vetter packing bag
- ✓ Avoid direct solar radiation and air that contains ozone
- ✓ A low-dust and moderately ventilated environment is recommended
- ✓ Temperature between +15 °C and 25 °C and relative humidity < 65 %

Never suspend the bags by the carrying handles for storage!

The VETTER Guarantee is 2 years for C.Tec Bags.

5. Elimination of defects

If the safety valve blows too early because of foreign body penetration caught up inside then the blow-off valve is to be fully opened on the head of safety valve by turning counter-clockwise so that the compressed air can escape. If the foreign body is not removed, the safety valve must be replaced.

Then check to make certain that it functions perfectly.

If it is not possible to connect the C.Tec bags, remove any contamination from the connecting parts. If there is minor damage to the metal parts, have the plate/pins replaced by the manufacturer.

If the seal or the seal plate on the safety valve of the controller on the upper part of the valve has been removed then correct operation is no longer guaranteed.

The safety valve is to be exchanged!



6. Storage

When stored and handled properly, the properties of rubber products remain nearly constant for a long period of time. However when handled improperly and under unfavourable storage conditions, their physical properties and/or service life are shortened!



Please comply with the following storage conditions:

Store in a place that is cool, dry, dust-free and moderately ventilated.

The storage temperature should be approx. 15 °C; never let it exceed 25 °C.

The temperature should also not fall below -10 °C.

If there are heating appliances and heating conductors in the storage room, they must be appropriately insulated so that the temperature of 25 °C is not exceeded. Maintain a minimum clearance between the heating appliances and the stored goods of 1 m.

Do not store rubber products in moist storage rooms. The relative humidity should be less than 65 %.

Protect the rubber products from light (direct exposure to sunlight, artificial light with high proportion of UV). The windows in the storage room need to be correspondingly darkened.

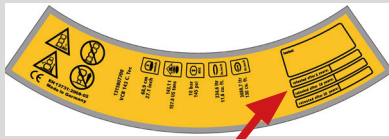
Make sure that the storage room does not contain any appliances that cause ozone.

The storage room must be free of solvents, fuels, lubricants, chemicals, acids, etc.

Store rubber products without pressure, tensile stress or similar distortions since that can promote deformations or crack development.

Some metals such as copper and manganese can also have a damaging effect on rubber products.

For more information please refer to DIN 7716.



Proposal for inspection intervals on the label

7. Repetitive tests

Lifting bag systems are to be subjected to periodic maintenance and testing of rescue equipment in accordance with the relevant national regulations.



The points listed below are merely recommendations of Vetter GmbH for Germany, based on the inspection principles of DGUV (Deutsche Gesetzliche Unfallversicherung - German statutory accident insurance) Principle 305-002:

- ✓ Testing on acceptance:
Testing for completeness by the person/people delegated by the user.
Visual check and operation test by a trained person according to the operation manual.
Create test certificates.
- ✓ Visual check and operation test after each application/use by the user.
Create test certificates.
- ✓ At least once a year, the lifting bag system must be subjected to a visual and functional test by a competent person (in Germany according to DGUV Principle 305-002).
Create test certificates.
- ✓ At least every 5 years, or if there are doubts about the safety of reliability, the lifting bag system is to be subjected to a pressure test by a competent person (in Germany according to DGUV Principle 305-002) with further training of the manufacturer or a test by the manufacturer.
Create test certificates.

The user is responsible for the correct and professional execution of the repetitive tests!

8. Diagram: Force vs. Stroke (available on request)

On request special individual Force vs. Stroke diagrams are available for each bag types.

9. Technical data

Connectable Bags VCB and VCB N C.Tec 12 bar / 174 psi				
	Unit	VCB N 30 C.Tec 12	VCB N 75 C.Tec 12	VCB 172 C.Tec 12
Art. No.		1316004600	1316004700	1316003900
Lifting power with full areal contact, max.*	t	30,1	74,7	171,8
	US tons	33.2	82.3	189.3
End lifting capacity	t	7	12	15
	US tons	7	13	16
Lifting height at end lifting capacity	cm	19,5	33,2	59
	inch	7.7	13.1	23.2
Lifting height max. *	cm	27,5	43,5	69
	inch	10.8	17.1	27.2
Air requirement at 12 bar / 174 psi	l	328	1.269	5048
	cu.ft.	11,57	44,75	178
Diameter	cm	56,5	89	135
	inch	22.2	35.0	53.2
Weight approx.	kg	12	22,4	58
	lbs	12.5	49.4	127.9
Insertion height	cm	7	7	11,5
	inch	2.8	2.8	4.5

All rights reserved for technical changes within the scope of product improvement.

* without loading

Connectable Bags VCB and VCB N C.Tec 12:

Operating pressure: 12 bar (174 psi)
 Test pressure: 18 bar (261 psi)
 Burst pressure, at least: 48 bar (696 psi)

EC Conformity Declaration (available on request)

in accordance with Directive 2006/42/EC

Manufacturer name and address:

**Vetter GmbH
A Unit of IDEX Corporation
Blatzheimer Str. 10 - 12
53909 Zülpich**

We hereby declare, that the VCB and VCB N C.Tec 12 Bags 12 bar for lifting and lowering of loads

Type: _____
Serial-No.: _____
Model: _____

(refer to equipment label, to be entered by the customer)

meets the following relevant provisions:

Directive 2006/42/EC on Machinery

Applied harmonised standards, references to which have been published in the Official Journal of the European Union:

DIN EN ISO 12100

EN 13731

Applied national standards and technical specifications:

Authorised representative for the compilation of technical documents:

**Vetter GmbH
A Unit of IDEX Corporation
Blatzheimer Str. 10 - 12
53909 Zülpich**

This EC Conformity Declaration was issued:

Zülpich, 01.09.2022
(Place, Date)

Place your trust in emergency pneumatics!

We are the company who can help you, find a solution to your problem!

Vetter GmbH

A Unit of IDEX Corporation

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