

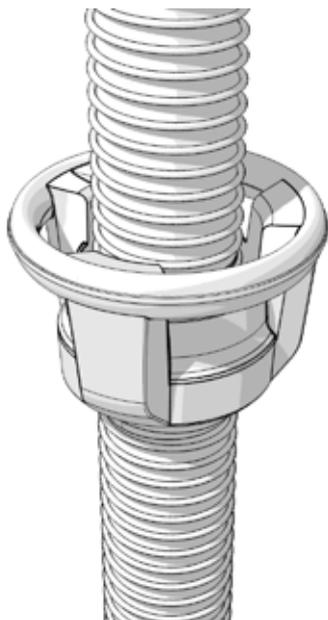


# SDCH

Safety disconnect handle

## PRODUCT USER MANUAL

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Thank you for buying a Plymovent product. Before you unpack and put it into operation please read this product manual carefully, and follow the instructions.

This manual should be handed over and kept by the service department after the installation.

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## I. IMPORTANT SAFETY INSTRUCTIONS

Please read these instructions before installing the Safety Disconnect Handle (SDCH). This will help you obtain the full benefit from the product and the exhaust removal system you have selected.

- A. Read the product user manual and safety instructions carefully. Failure to follow these instructions could cause a malfunction in the system or unsatisfactory performance.
- B. Follow a regular service and maintenance schedule for efficient operation.

## PREFACE

### Using this manual

This manual is intended to be used as a work of reference for professional, well trained and authorized persons / user's to be able to safely install, use, maintain and repair the product mentioned on the cover of this document.

### Pictograms and symbols

The following pictograms and symbols are used in this manual:

	<b>ATTENTION</b> A remark with additional information for the user. A remark brings possible problems to the user's attention.
	<b>CAUTION!</b> Procedures, if not carried out with the necessary caution, could damage the product, the workshop or the environment.
	<b>WARNING!</b> Procedures which, if not carried out with the necessary caution, may damage the product or cause serious personal injury.
	<b>WARNING!</b> Denotes risk of electric shock.
	<b>WARNING!</b> Important warning to prevent fire.

### Service and technical support

For information about specific adjustments, maintenance or repair jobs which are not dealt with in this manual, please contact the supplier of the product. He / she will always be willing to help you.

Make sure you have the following specifications at hand:

- The SDCH product user manual

## 2. INTRODUCTION

### 1.1 Identification of the product

The SDCH contains an upper and lower half that together form the SDCH. The product is placed at working level height in the hose drop, thereby creating a lower- and upper hose section. In pneumatic systems the SDCH also contains the pneumatic operating valve.

## 3. PRODUCT DESCRIPTION

### The safety disconnect handle

Plymovent now offers you the next generation in exhaust removal operation for emergency stations. Designed for functionality and efficiency this product is easy to use and offers the next step in safety disconnects, your personnel are worth it! With an un-interrupted flow through the exhaust removal hose, the exhaust gasses are transported as efficiently as possible out of the breathing zone.

### Easy to operate

The safety disconnect handle is designed to be ergonomic in use. The round handle has large grips so it can be handled even with gloves on and can be reached from all angles.

It prevents the user from having to bend in order to connect the exhaust removal system which limits the danger of exposure to exhaust gasses.

### Functional design

With the design of the safety disconnect, the function is always considered. The inside is made from durable steel to cope with high temperature exhaust gasses, the outside, engineered plastics.

When operating a pneumatic system, the integrated pneumatic valve is shielded and positioned in such a way it is very easy to operate. The safety disconnect handle for magnetic system does not include the valve but does offer benefits such as easy operation of the system and the patent pending safety disconnect function.

### SDCH Release

When the safety disconnect releases the lower inner flange will disconnect leaving the complete safety disconnect handle in tact on the upper hose section. The inner flange will disconnect and thereby releasing the lower hose section. In a pneumatic system the air supply then also disconnects. This ensures the pneumatic Grabber® releases its air and disconnects from the vehicle.

	<b>WARNING!</b> The use of exhaust removal hose is allowed for: <ul style="list-style-type: none"><li>- Moving of diesel-vehicles in- or out halls / stations.</li><li>- Short time maintenance work of diesel-vehicles, but only if the engine is running on the minimum rpm.</li><li>- The vehicle must leave and enter the station with a modified speed in order to avoid damage to the system and possible injury to people.</li></ul>
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## 4. SAFETY

### General

The manufacturer does not accept any liability for damage to the product or personal injury caused by ignoring of the safety instructions in this manual, or by negligence during installation, use, maintenance, and repair of the product mentioned on the cover of this document and any corresponding accessories.

Specific working conditions or used accessories may require additional safety instructions. Immediately contact your supplier if you detect a potential danger when using the product. The user of the product is always fully responsible for observing the local safety instructions and regulations. Please observe all applicable safety instructions and regulations.

### User manual

- Everyone working on or with the product, must be familiar with the contents of this manual and must strictly observe the instructions herein. The management should instruct the personnel in accordance with the manual and observe all instructions and directions given.
- Never change the order of the steps to perform.
- Always keep the manual with or near the product.

### Pictograms and instructions on the product (if present)

- The pictograms, warning and instructions attached to the product are part of the safety features. They must not be covered or removed and must be present and legible during the entire life of the product.
- Immediately replace or repair damaged or illegible pictograms, warnings and instructions.

### Users

- The use of this product is exclusively reserved to authorized, trained and qualified users. Temporary personnel and personnel in training can only use the product under supervision.
- Use common sense. Stay alert and keep your attention to your work. Do not use the product when you are under the influence of drugs, alcohol or medicine.
- The product is not designed to be installed or operated by persons with limited physical, sensory or mental issues and / or limited knowledge of the system, the trained person is responsible to supervise the operation and give possible directions.
- Be aware that no person is within a range of 1 (one) meter besides the vehicle when it leaves the station, and no persons are allowed in the station entrance, to avoid injury.
- Do not stand in the door opening or next to the door when the vehicle is exiting.
- Do not stand under the rail when the vehicle is exiting.
- The system is not to be played with.

### Intended use (I)

The product has been designed as a safety disconnect handle using the Grabber® coupling system. Using the product for other purposes is considered contrary to its intended use. The manufacturer accepts no liability for any damages or injury resulting from such use. The product has been built in accordance with state-of-the-art standards and recognized safety regulations. Only use this product when in technical perfect condition in accordance with its intended use and the instructions explained in the user manual.

WARNING	
	Do not attempt installation of this product unless you are familiar with the necessary tools, equipment, utility connections and potential hazards. Installation should be performed only by a qualified service provider. Failure to do so could result in reduced performance of the unit, serious personal injury or death.

WARNING	
	Use care when servicing and installing the system. Failure to do so could result in minor personal injury.

### Technical specifications

The specifications given in this manual must not be altered. If the hose is damaged please contact your supplier for service. When the safety disconnect handle or the spring blocks are damaged please contact you supplier for service.

### Modifications

Modifications of (parts of) the system / product is not allowed.

### Product combinations

When the product is used in combination with other products or machines the safety instructions in this manual will remain valid as well as the safety instructions in the manuals of the other combined products.

(I) The "intended use" in accordance with EN 12100-1 is the use of the technical product in accordance with the manufacturers description including its statements in the sales brochure. In case of doubt, this is of use, which can naturally be derived from the design, construction and operation of the product. Intended use also includes compliance with the instructions in the manual.

CAUTION!	
	Please apply and use the pre-described and normal personal protection devices during installation and during service of the system in order to avoid injuries. This also applies to the persons who enter the work area during installation or service activities.

## Installation

- The installation of the products should only be performed by trained and authorized persons. For other persons and to be trained persons the products should only be handled under supervision of a responsible and authorized person when installing.
- Please ensure that, on the side of the vehicle where the system is installed, no persons are present in an area of 1 meter / 3.3ft under and / or around the exhaust removal system and /or between the vehicle and the entry / exit door when the vehicle exits the building. This way possible injuries can be avoided by a possible backwards motion of the system the direction of the station and park position.
- Never install the product in front of entries, exits or passage ways which are to be used by emergency services.
- Use common sense. Stay alert and keep your attention to your work. Do not use the product when you are under the influence of drugs, alcohol or medicine.
- Air, which might contain health hazardous components, such as chrome, Nickel, Beryllium, Cadmium, Lead etc. should never be recycled. This type of air must always be removed from the working area.

## Use

- Inspect the product and check for damages. Verify the functioning of the safety features.
- Check the working area. Please keep unauthorized persons away from the working area.
- Protect the product against water and humidity.
- Make sure the room is always sufficiently ventilated; this applies especially to confined spaces.
- Make sure that the workshop, in the vicinity of the product, contains sufficient approved fire extinguishers if any electronics, such as control boxes, are used.
- The user of the product always has full responsibility for the correct execution of the safety guidelines and instructions. These are all the safety guidelines and instructions which apply to the use of the system.

## Service, maintenance and repairs

- Observe the maintenance intervals given in this manual. Overdue maintenance can lead to high costs for repair and revisions and can render the guarantee null and void.
- Always use tools, materials, lubricants and service techniques which have been approved by the manufacturer. Never use worn tools and do not leave any tools in or on the product.
- Safety features which have been removed for service, maintenance or repairs, must be put back immediately after finishing these jobs and it must be checked that they still function properly.
- Please ensure that no vehicle enters or exits the station during the service, maintenance and repair activities.
- Please use appropriate lifting materials and equipment when working in an area over 2m / 6.5 feet.

## Tools

These tools are needed to install the safety disconnect handle:

- Allen key set
- Phillips screwdriver set
- Torx T20 Screwdriver

Please note that additional tools and machines may be needed depending on the installation situation (installation height, space available etc).

## 5. CE DECLARATION

### CE declaration of conformity for machinery

"We, Plymovent, Kopparbergsgatan 2, SE-214 44 Malmö, Sweden, herewith declare, on our own responsibility, that the product(s):

- Safety disconnect handle

is/are in conformity with the following harmonized standard(s) and/or other such normative documents + amendments, if any:

Alkmaar, the Netherlands, 18-10-2010



C.J.M. Knijn  
Chief Operations Officer

	<b>ATTENTION!</b>
	Service, Maintenance and Repair Activities shall only be performed (in line with TRGS 554) by authorized, trained and qualified personnel taking into account the applicable working practices and safety regulations.

## 6. AREA OF USE

The safety disconnect handle can be integrated in both the pneumatic and magnetic exhaust removal systems of Plymovent.

A Plymovent system enables you to efficiently remove dangerous exhaust gasses, saving you money and bringing you clean air at work.



### ATTENTION!

Please ensure the Balancer locking cable is always installed when using the safety disconnect handle. Failure to do so might lead to damage to property of persons.

## 7. DELIVERY

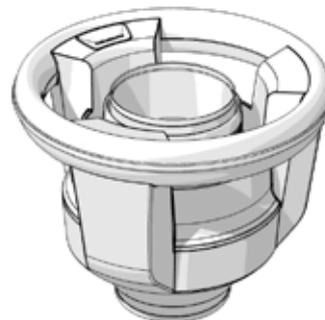
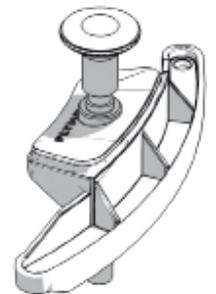
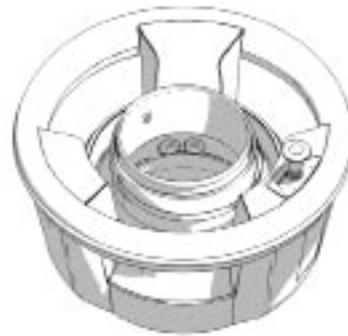
### Delivery

The safety disconnect handle is available in 2 sizes and 4 different versions:

Description:	Art number EU	Art number (USA only)
SDCH-Pneumatic 100mm/ 4"	90550-1011	702502-A
SDCH-Pneumatic 125mm/ 5"	90555-1011	702503-A
SDCH-Magnetic 100mm/ 4"	90560-1011	702500
SDCH-Magnetic 125mm/ 5"	90565-1011	702501

The Safety disconnect coupling is delivered completely assembled with a preset springload. The standard setting on delivery gives you a release force at approximately 450N/ 99 lb-force.

Pneumatic system: The safety disconnect handle includes the pneumatic operating valve.



## 8. INSTALLATION

### Installation

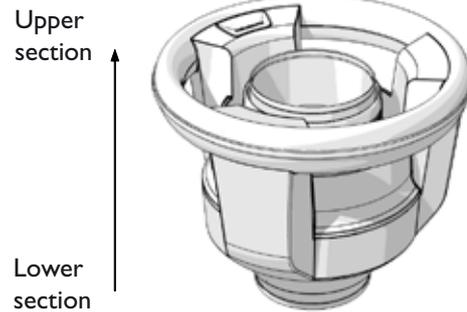
The Safety Disconnect coupling shall be placed in to the hose package with the wide side of the product up. The inner flange of the top side of the product should be attached with a hose clamp to the upper hose section. Please cover the hose clamp with the rubber sleeve to avoid injury during use.

The inner flange of the smaller lower part should be attached to the lower hose section of the system with a hose clamp. Please cover the hose clamp with the rubber sleeve to avoid injury during use.

### Function

The safety coupling opens in case of missue of the system or failure of the disconnection and can be re-used in order to create a fully functioning system again.

Position of the safety disconnect handle in an exhaust removal system.

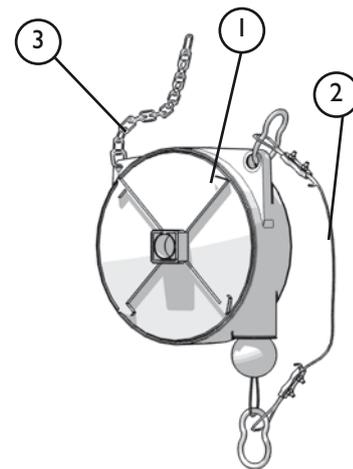


	<b>WARNING!</b> After the Safety Disconnect has released please check if all spring blocks in the product are free of damage and functioning correctly. Any damaged parts should be replaced and the correct functioning should be verified. If not functioning correctly the Safety disconnect can potentially cause damage to person or property.
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### Balancer locking cable

1. Balancer
2. Balancer locking cable (BLC)
3. Balancer safety chain

Please ensure you correctly install the balancer locking cable to the balancer and the trolley. Please see SBT and STR System product user manual for the correct installation descriptions.



### Installation height

The installation height of the safety disconnect handle should be approximately 1 meter / 3.3 feet above the floor of the building.

	<b>ATTENTION!</b> Please ensure the Balancer locking cable is always installed when using the safety disconnect handle. Failure to do so might lead to damage to property of persons.
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## 8. INSTALLATION

- 1) The distance between the floor and the Grabber® nozzle (1) should be 25cm / 10" - 30cm / 12" from finished floor
- 2) The distance between the floor and the safety disconnect handle (2) should be 1 meter / 3.3 feet from finished floor

There are two situations where the new SDCH can be used:

- in a magnetic exhaust removal system
- in a pneumatic exhaust removal system

### For the magnetic system:

- Determine the position of the SDCH in the hose drop (approx 1 meter / 3.3 feet above the floor).
- Insert the upper flange and the SDCH in the upper hose and tighten the hose clamp.
- Cover the hose clamp with the rubber protective sleeve when the hose clap is tightened.
- Insert the lower flange in the lower hose and tighten the hose clamp.
- Cover the hose clamp with the rubber protective sleeve when the hose clap is tightened.

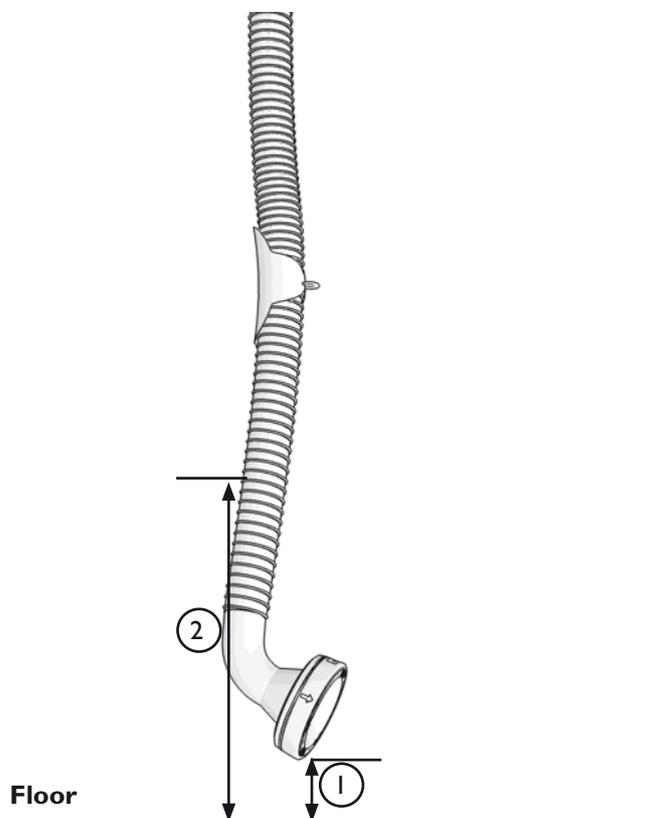
### For the Pneumatic system

- Determine the position of the SDCH in the hose drop (approx 1 meter / 3.3 feet above the floor).
- Unscrew the upper and lower plastic parts of the new SDCH (6 screws on the bottom of the handle).
- Position and fix the upper half of the new SDCH around the upper hose.
  - \* Make sure the position of the valve is on the opposite site of the vehicle.
  - \* Make sure the rubber cover for the hose clamp is fitted.
- Insert the two 6mm air lines through the rubber protective rings in the upper aluminium flange.
- Connect the two 6mm air lines into the MFD valve (P on the valve is for the 1 bar Grabber® supply, the other tube fitting on the same side of the valve is for the reset signal). See image to the right:
- If the two 6 mm tube are right connected to the valve, (check function) re-assemble the two plastic parts together with the same 6 screws. Hereby attaching the lower half of the SDCH to the upper half (including the lower aluminium flange).
- Insert the lower flange in the hose and tighten the hose clamp.
- Cover the hose clamp with the rubber protective sleeve when the hose clap is tightened.
- Insert the lower flange in the lower hose and tighten the hose clamp.
- Cover the hose clamp with the rubber protective sleeve when the hose clap is tightened.
- Push the 8mm Grabber® line in the hole, just underneath the valve in the plastic lower part of the SDCH.
- Switch the compressed air on.

**CAUTION!**



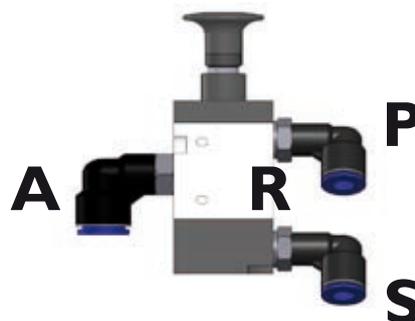
Please apply and use the pre-described and normal personal protection devices during installation and during service of the system in order to avoid injuries. This also applies to the persons who enter the work area during installation or service activities.



### Pneumatic version of the Safety Disconnect handle

In case of maintenance or adjustment of the Pneumatic valve please note the following:

Upper valve	P	1 bar in
Lower valve	S	8 bar in
Grabber® connection	A	1 bar out
Release	R	(leave open)



## 9.

## USER- AND MAINTENANCE INSTRUCTIONS

### User instructions

You can operate the SDCH by holding the product at the grips. You can maneuver the hose using the safety disconnect handle.

For a pneumatic system you can find the operating valve incorporated in the product. When the valve is pressed down the air is on and the Grabber® is inflated. When the valve is up the air is off and the Grabber® is deflated.

### Disconnection

When the safety disconnect has released, the lower part of the hose is separated from the system. Please take the lower hose section and insert the metal flange into the lower part of the safety disconnect handle. With a force of approx 150N/ 33 lb-force you can re-connect the lower hose section to the system. Please note the warning on this page. When the lower part is reconnected the system should function again as normal for a magnetic system.

For a pneumatic system, the same applies but adding:

- Please reconnect the airline to the SDCH that runs from the Pneumatic Grabber® to the SDCH. You can find a small hole underneath the valve in the SDCH where the air tube is pushed in.

### Inspection and maintenance:

Inspection/maintenance shall be done according to following schedule:

0-500	turn-outs/year	every 16th week
500-1500	turn-outs/year	every 12th week
1500-3000	turn-outs/year	every 8th week
3000 +	turn-outs/year	every 4th week

1. In order to ensure correct functioning of the SDCH please ensure the product is cleaned periodically.



### ATTENTION

Do not use solvents to clean the system.



### WARNING!

After the Safety Disconnect has released please check if all spring blocks in the product are free of damage and functioning correctly. Any damaged parts should be replaced and the correct functioning should be verified. If not functioning correctly the Safety disconnect can potentially cause damage to person or property.



### ATTENTION!

- Service and maintenance only to be done by qualified and trained persons ( in EU according to TRGS 554.
- Use sufficient climbing gear and safety guards when working on a higher level than 2.0 meter.
- Only carry out service and maintenance when the system is fully disconnected from mains.
- Be sure no vehicle can enter the station/bay when carrying out service/maintenance.

## 10. DISPOSAL

The level of Service and Maintenance on the Plymovent systems is relatively low. The Service and Maintenance department of Plymovent consists of well trained personnel who can offer you a Service and Maintenance contract which ensures your system will function for many years to come.

When dismantling the system please ensure to follow the similar safety precautions as mentioned in this manual for installation.

Dismantling must be done contrary to the installation instructions.

### Disposal

- |                          |            |
|--------------------------|------------|
| - Cardboard packaging    | Recycle    |
| - Aluminium inner flange | Recycle    |
| - Plastic outer parts    | Rest waste |

## 11.

## SPARE PARTS

Description:	Art number EU	Art number( USA only)
SDCH/ LOWER FLANGE 100mm/ 4"	600419-Z	702510
SDCH/ LOWER FLANGE 125mm/ 5"	600546-Z	702512

