

## Implementing new hoses and non-return valves for dampers

**Distribution to:**

- Operators and owners of installations concerned
- Commissioning teams of projects concerned

**For immediate attention \*****Equipment concerned**

WÄRTSILÄ® V-SOx and Q-SOx scrubbers with 2-way and 3-way dampers (including certain control cabinets) delivered by WES.

**Reference**

WV92S303 – *Temporary inspections of WES 3-way damper valve control cabinet*

**Introduction**

The purpose of this bulletin is to inform about new hoses and couplings as well as non-return valves that can easily be mounted. This will prevent setbacks from damper to the accompanying control cabinet delivered by exhaust gas damper manufacturer WES. Described parts are offered free of charge (labour excluded, to be carried out by crew).

**Risk**

If setback occurs, the cabinet can be exposed to hot exhaust gas (hot flue gas) causing serious damage to the internally installed equipment. In case hot flue gases enters the damper cabinet, it might result in risk for hot surfaces and malfunction of the specific damper. This can result in operational difficulties.

**Preventive action**

Install the hoses, couplings and non-return valves to prevent possible setbacks of the exhaust gas (hot flue gas).

**Validity**

Valid until 31 May 2021.

Before taking any action, always check the available online systems for the latest revision of this document. Any locally stored or printed version is considered to be an uncontrolled document.

\* For immediate attention: This bulletin should be read immediately with possibly immediate action as well. Neglecting this bulletin can be dangerous for personnel or cause damage to the installation or environment.

## Introduction

The scrubber system has dampers installed and the purpose of the dampers are to route the exhaust gas into the scrubber or directly to the exhaust stack. The damper discs can over time be fouled by soot, hence the soot cleaning function. Soot cleaning is automatically activated by the scrubber control system but if desired by operator, the soot cleaning can be triggered manually.

The damper has a cabinet with different components (shown in Figure 1).

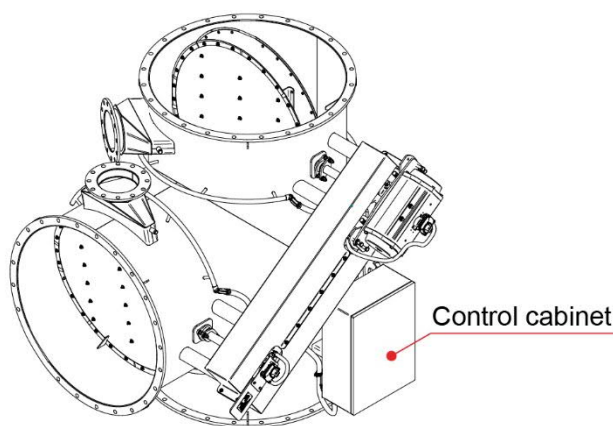


Figure 1, Example of a 3-way damper valve with control cabinet (project dependent)

## Instructions

Depending of the shape and size of the dampers and its accompanying control cabinets several retrofit kits are available.

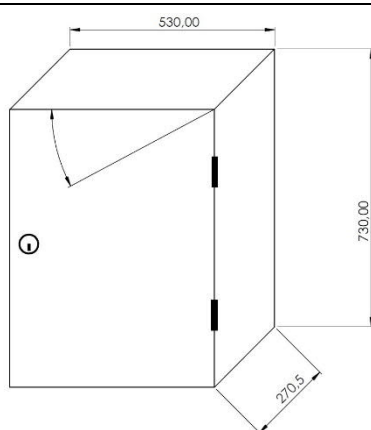


Figure 2, Control cabinet (shown as reference only)

The numbers for the different kits are listed in Table 1 (see page 3) and detailed assembly instructions including part list can be found in section Enclosures.

## Ordering

When ordering, please include scrubber order number (SP/\_ \_ \_ \_ \_), the number can be found on scrubber main tag plate found on the scrubber body. The scrubber order number will be used for detecting the different kit(s) needed for installing necessary parts. The customer will receive correct parts for performing the upgrade.

**Table 1, Rep. kit overview (included for information only- not needed to include when ordering)**

Ref.type	Number	Description	Note	Qty
SOX	XAAB981241	Soot retrofit kit B	For TPD (3-way damper) and BFD (butterfly damper) >DN950 including Control Cabinet (COC) version 2.0 or 5.0	1
	XAAC069484	Soot retrofit kit D-E	For TPD (3-way damper) and BFD (butterfly damper) DN300 up to DN950 For TPD (3-way damper) and BFD (butterfly damper) DN1000 up to DN2000	
	XAAC069486	Soot retrofit kit F	For Louver Damper DN2800	

Parts described are supplied free of charge (DAP/CIP Incoterms 2020), **if claimed before 31 May 2021**. Labor for installing the parts is excluded, this is to be done by the vessel technical crew.

## Enclosures

Enclosure 1: "Assembly and Installation Manual SOOT RETROFIT KIT B", 9 pages.  
 Enclosure 2: "Assembly and Installation Manual SOOT RETROFIT KIT D+E", 9 pages.  
 Enclosure 3: "Assembly and Installation Manual SOOT RETROFIT KIT F", 5 pages.

## Contacts

For services, spare parts and/or tools, please contact your nearest Wärtsilä representative or log in to Wärtsilä Online: [www.wartsila.com/wartsila-online](http://www.wartsila.com/wartsila-online)

If you do not have the contact details at hand, please follow the link:  
[www.wartsila.com/contact](http://www.wartsila.com/contact)

# Assembly and Installation Manual

## SOOT RETROFIT KIT B

CONTROL CABINET COC Version 2.0 and 5.0

### Soot-cleaning system

### Soot Retrofit Kit B



The manufacturer explains:

In systems of identical construction, damages to the PE connections of the soot-line were found in the control cabinet.

The components mentioned above may no longer be operated without the subsequent retrofit.

For questions, WES names the email address: [info\(at\)wes.de](mailto:info(at)wes.de).

The manufacturer apologizes to customers regarding this instruction and clearly states the risk:



### WARNING

While running the EGC system with the WES 2-way or 3-way damper >DN950 including Control Cabinet (COC) version 2.0 or 5.0, there is a risk of damage to the control cabinet, its soot-line-piping to the damper and all upstream components of the soot-line supply.

This is triggered by the possibility of hot flue gas flowing back from the soot-pipes at the damper through the cabinet towards the compressor.

## This causes a safety risk for man and machine!

To prevent this, the following retrofit-measures must be taken.

The RETROFIT KIT B contains the following parts:

Pos.	pcs.	Item no.	Description
1	2	100329	<b>4200-Soot retrofit-COC1</b>  (1x PTFE-tube incl. 2x scREW-in connector, 2x elbow connector, 1m blue hose)
2	1	100310	<b>12m Teflon thread sealing tape (PTFE)</b>
3	1	100326	<b>Labelling and packaging in sacks</b>
4	1	Doc	<b>this instruction</b>



**When the EGC system is routinely stopped, the retrofitting measures described below must be carried out.**

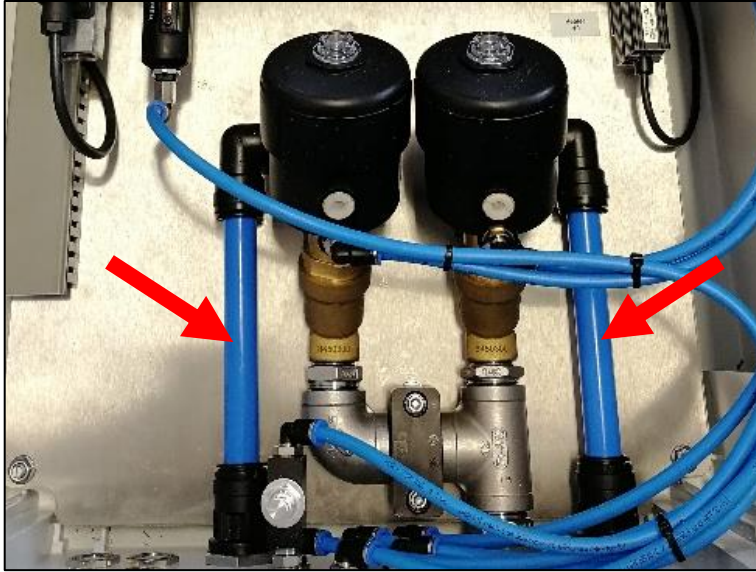


### WARNING

**The following steps should only be done while the EGC System is completely out of operation!**

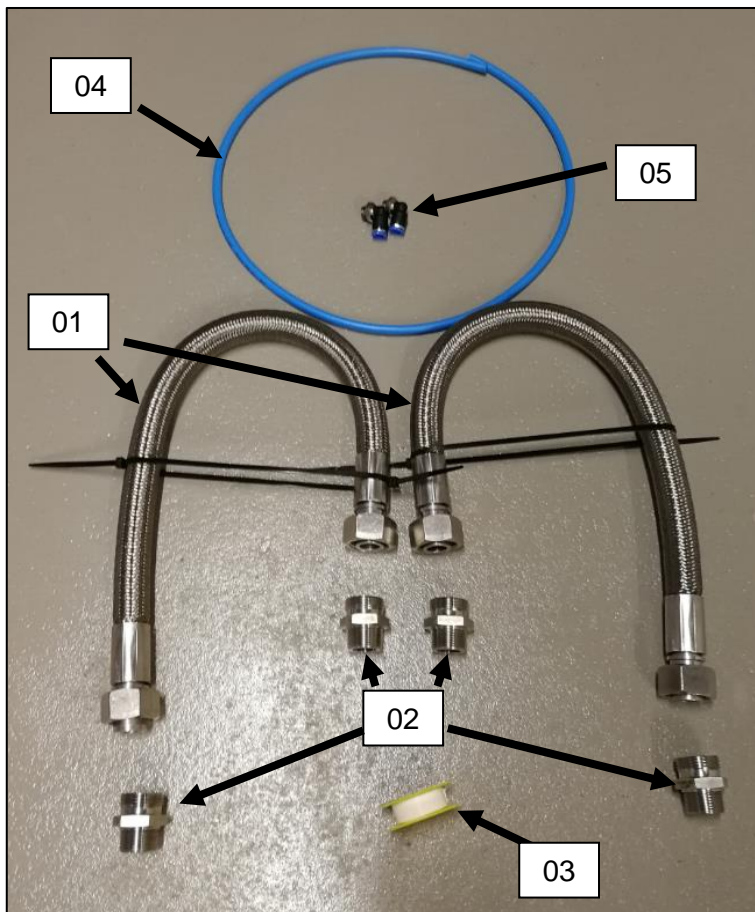
# Assembly and Installation Manual

## SOOT RETROFIT KIT B



### Actual state

These plastic piping and plastic fittings must be removed (see red arrows)



### Retrofit Kit

consisting of following parts:

- 01: 2x PTFE tube
- 02: 4x screw in connector
- 03: 1x Teflon tape
- 04: 1m blue hose
- 05: 2x elbow connector



# Assembly and Installation Manual

## SOOT RETROFIT KIT B



### Target State

Situation after installation of Retrofit Kit.

As you can see the PTFE-hoses are installed crossed. However, it is not necessary to swap the connections on the outside of the cabinet, as it does not matter which damper is blown in first.



### Step 1:

Remove the plastic clamp by loosening the two screws



### Step 2:

Solve the 1"-Soot Inlet connection below the control cabinet



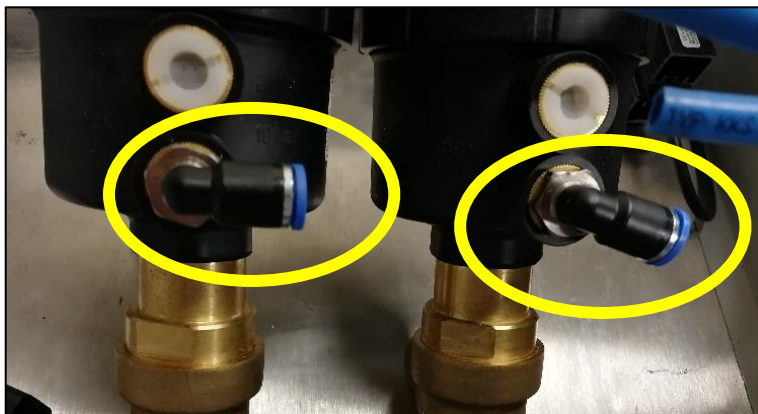
### Step 3:

Solve the upper plastic fittings by pushing the connector up

# Assembly and Installation Manual

## SOOT RETROFIT KIT B

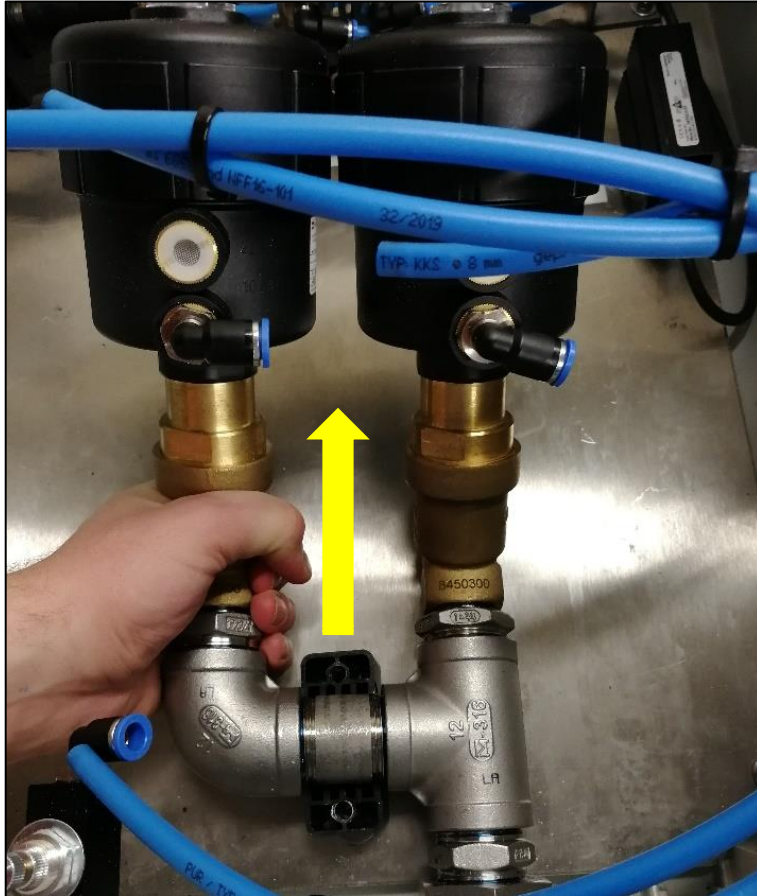
Then remove all other plastic parts



**Step 4:**  
Remove the blue pressure tubes  
from both soot-valves

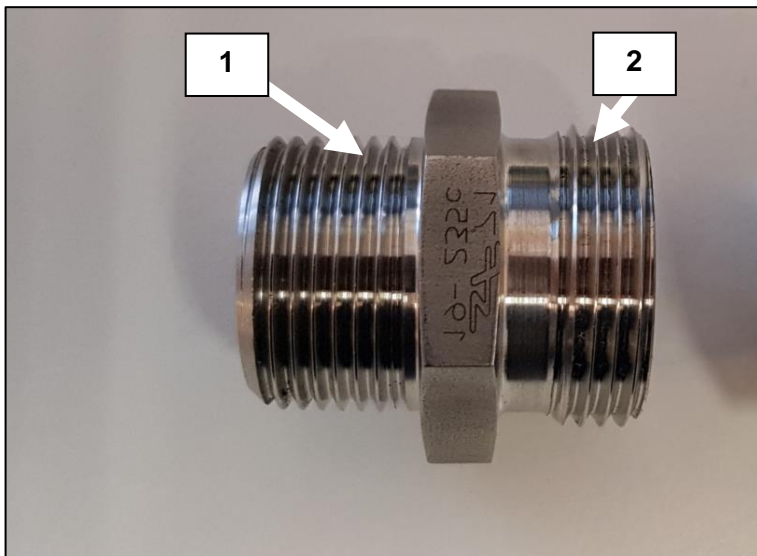
# Assembly and Installation Manual

## SOOT RETROFIT KIT B



### Step 5:

Remove soot-valves incl.  
stainless steel fittings in one part



### Step 6:

Wrap thread 1 of all four (4)  
screw-in connectors with teflon  
tape

Thread 2 is self-sealing and must  
not be taped with teflon tape



# Assembly and Installation Manual

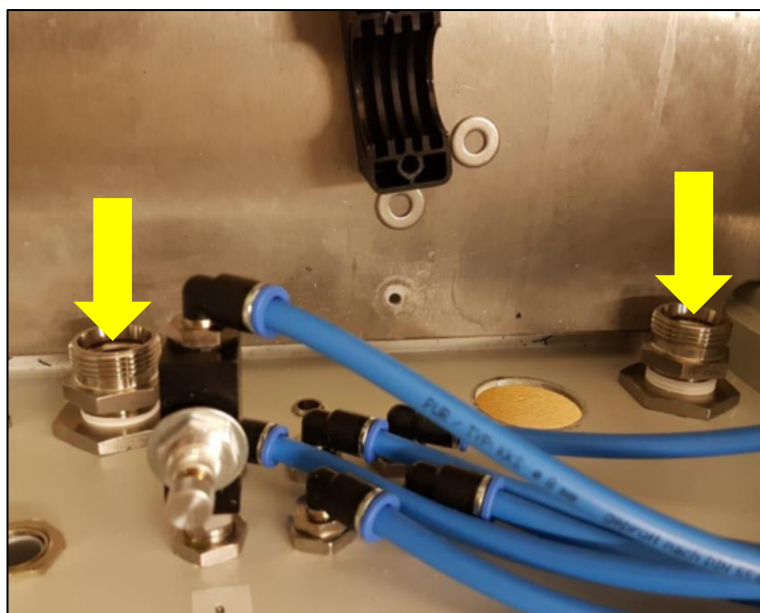
## SOOT RETROFIT KIT B

Enclosure 1 to WV92T318, issue 1.



### **IMPORTANT NOTE FOR USE OF TEFLEON TAPE ON RIGHT-HAND THREADS:**

If you let the thread point in your direction, the teflon tape must be wound up in a clockwise direction



### **Step 7:**

Screw two (2) screw-in connectors in both soot-outlets of the cabinet



### **Step 8:**

Screw the other two (2) screw-in connectors in the soot-valve outlets.

# Assembly and Installation Manual

## SOOT RETROFIT KIT B



### Step 9:

Mount both PTFE-tubes to the Soot-valve system before installation in cabinet

Do not use teflon tape here!  
The threads are self-sealing.



### Step 10:

Fix the soot-valve system with the plastic clamp in the cabinet again, ...



... mount the nut to the 1"-Soot Inlet connection and ...

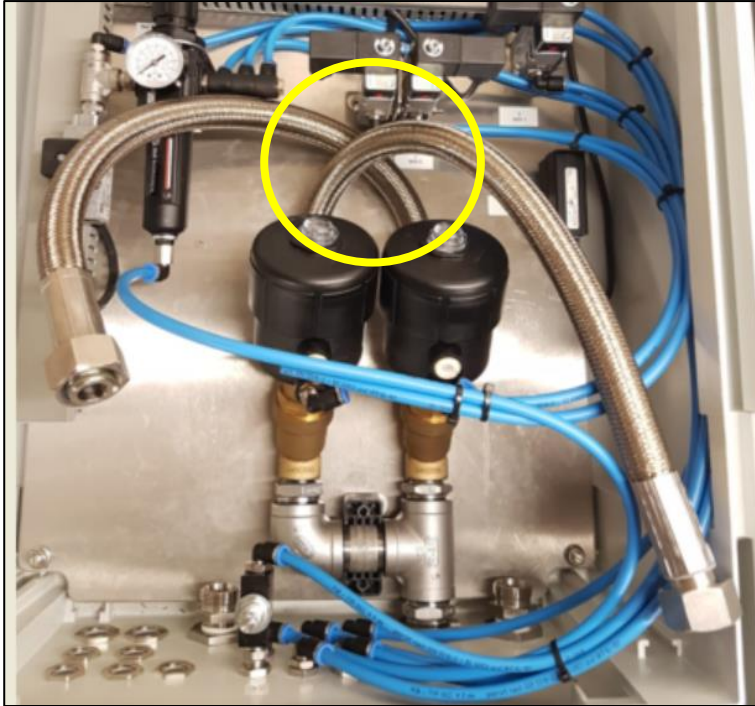


... connect the blue pressure hoses to the soot-valves



# Assembly and Installation Manual

## SOOT RETROFIT KIT B



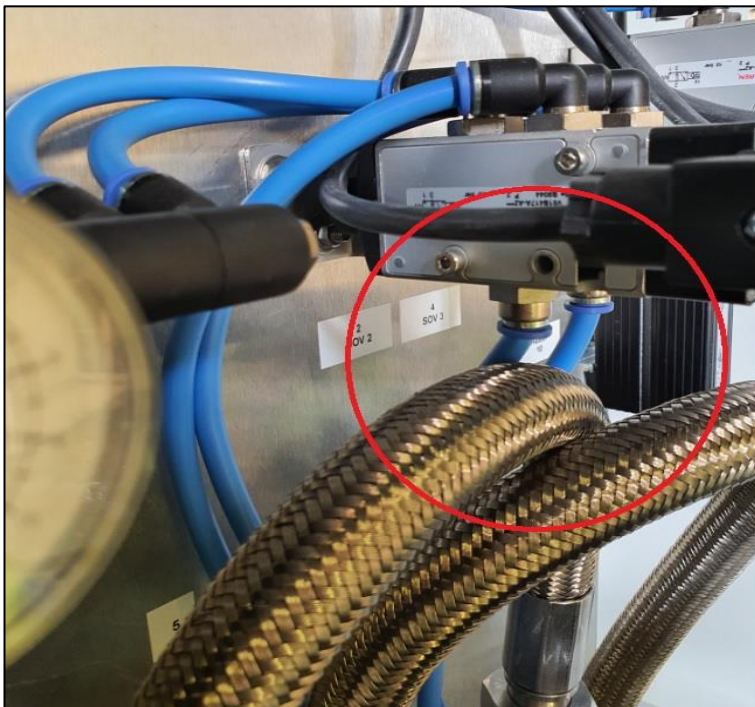
### Step 11:

When the soot-valve system is fixed in the cabinet make sure the PTFE-hoses are crossed.



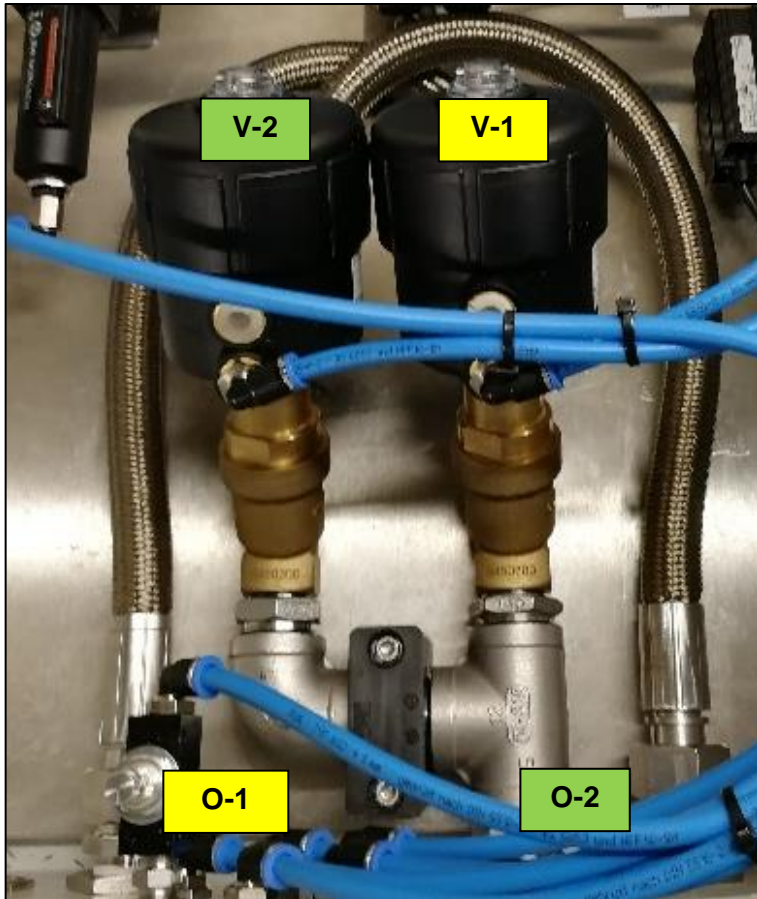
### Step 12:

If the situation looks like this, where the blue hose could be pressed by the new PTFE hoses, then use the supplied 2 pcs. elbow connector to avoid compressing. If the existing blue hose is too short after the elbow connector have been fitted, please replace it with the supplied hose which you can be cut to the correct length (approx. 450 – 500 mm).



# Assembly and Installation Manual

## SOOT RETROFIT KIT B



### Step 13:

Install PTFE-hose of **V-1** to the left outlet **O-1**.

Install PTFE-hose of **V-2** to the right outlet **O-2**.

Do not use teflon tape here!  
The threads are self-sealing.



**Check all mounted and installed parts for tight fit.**

**After restarting the EGC, check all hoses, pipes and fittings for leaks.**



# Assembly and Installation Manual

## SOOT RETROFIT KIT D + E

### SOOT LINE between damper and CONTROL CABINET



#### Valid for

**TPD / BFD – DN300 up to DN950 with cabinet COC Version 1.0 and 4.0**

**TPD / BFD – DN1000 up to DN2000 with cabinet COC Version 2.0/2.1 and 5.0**

### Damper Soot-cleaning system

The manufacturer explains:

In systems with identical functions, the risk has been determined that the rubber hoses installed, do not provide adequate protection against back-flowing flue gas under temperature.

The components mentioned above may no longer be operated without the subsequent retrofit.

For questions, contact you OEM scrubber maker.

The manufacturer apologizes to customers regarding this instruction and clearly states the risk:



#### **WARNING**

**While running the EGC system with the WES 2-way or 3-way damper including Control Cabinet (COC) , there is a risk of damage to the control cabinet, its soot-line-piping to the damper and all upstream components of the soot-line supply.**

**This is triggered by the possibility of hot flue gas flowing back from the soot-pipes at the damper through the cabinet towards the compressor.**

**This causes a safety risk for man and machine!**

**To prevent this, the following retrofit-measures must be taken.**



When the EGC system is routinely stopped, the retrofitting measures described below must be carried out.

# Assembly and Installation Manual

## SOOT RETROFIT KIT D + E

**RETROFIT KIT D – XAAC069484** (Indication of hose length according to damper size)

For TPD (3-way damper) and BFD (butterfly damper) **DN300 up to DN950**

contains the following parts:

Pos.	pcs.	Item no.	Description
1	1	100485	4200-Soot retrofit-CV5 check valves <b>3/4"</b> + mounting parts
2	1	100zzz	Hydra-corrugaed ring hose DN20 - l= XXX
3	1	100310	12m Teflon thread sealing tape (PTFE)

**RETROFIT KIT E – XAAC069484** (Indication of hose length according to flap size)

For TPD (3-way damper) and BFD (butterfly damper) **DN1000 up to DN2000**

contains the following parts:

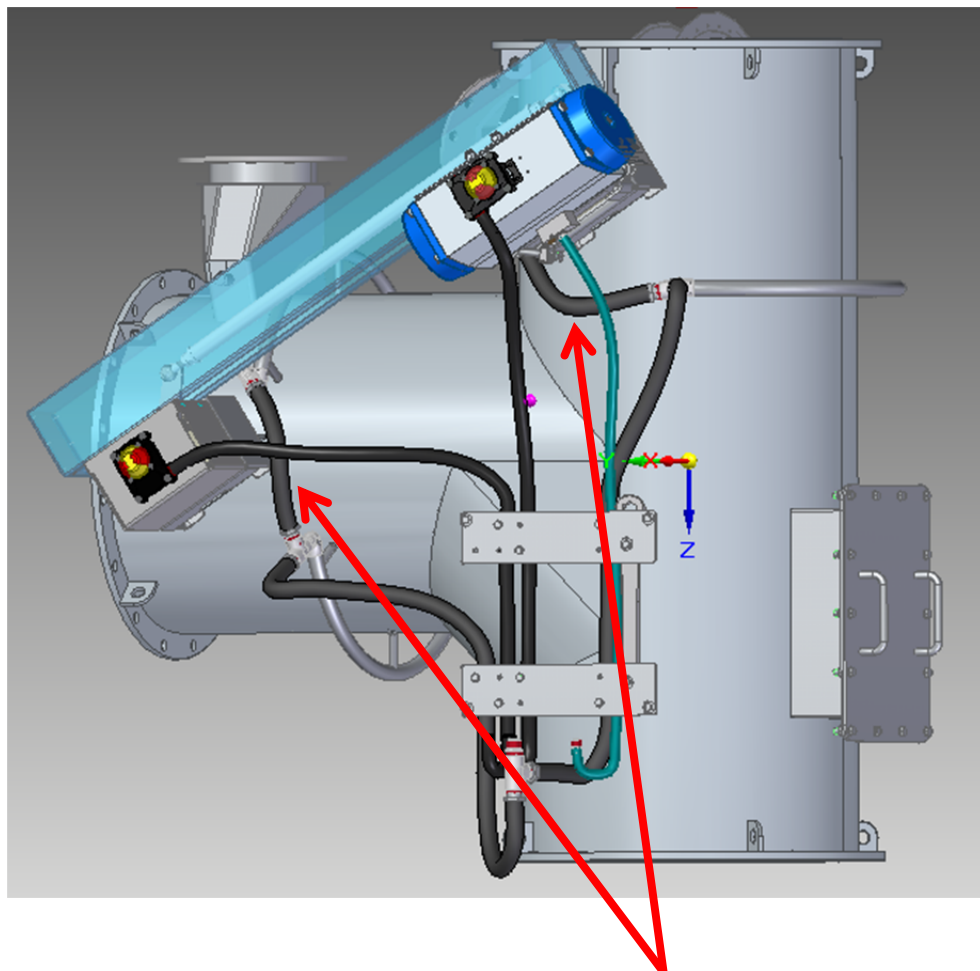
Pos.	pcs.	Item no.	Description
1	1	100485	4200-Soot retrofit-CV6 check valves <b>1"</b> + mounting parts
2	2	100zzz	Hydra-corrugaed ring hose DN20 - l= XXX
3	1	100310	12m Teflon thread sealing tape (PTFE)

**All kits are labelled and individually packed in sacks, including this instruction.**

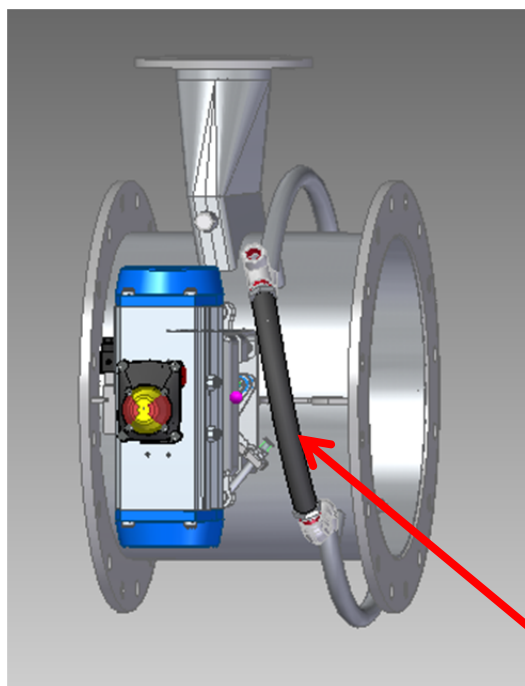
Hose length	TPD (3-way damper) - DN	BFD (butterfly) - DN	CV size
360	<b>350, 400, 450, 500</b>	<b>450</b>	<b>¾"</b>
500	<b>600, 750, 800</b>		<b>¾"</b>
600	<b>1000, 1200</b>		<b>1"</b>
700	<b>1300, 1400, 1700, 1800</b>	<b>1300</b>	<b>1"</b>
850	<b>1500, 1600</b>	<b>1500, 1800</b>	<b>1"</b>
1000	<b>2000</b>		<b>1"</b>

# Assembly and Installation Manual

## SOOT RETROFIT KIT D + E



**TPD = 3-way damper requires 2 x Retrofit Kit D/E - XXX**



**BFD = butterfly damper requires 1 x Retrofit Kit D/E - XXX**

# Assembly and Installation Manual

## SOOT RETROFIT KIT D + E

### Actual state

**The ends of the soot ring line are connected with a rubber hose and from one end there is a rubber hose connection to the Control Cabinet**



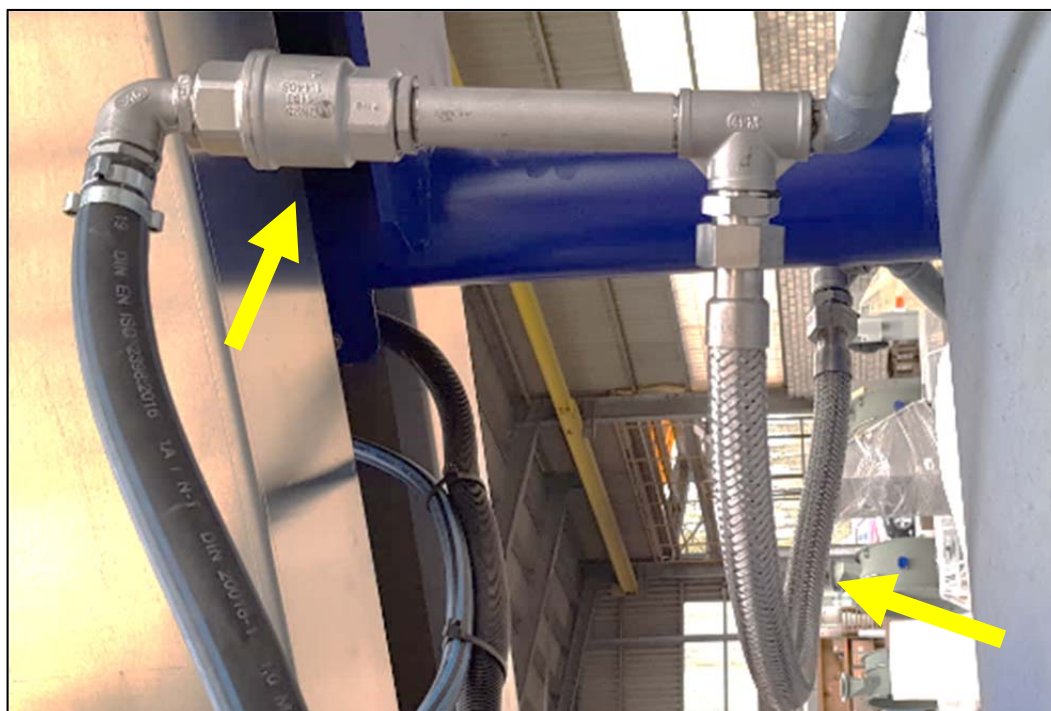
Rubber hose between the soot rings and no check valve.

### Retrofit work

**The short rubber hose is to be replaced and a non-return valve is inserted before the hose connection to the Control Cabinet**

### Target State

**Situation after installation of Retrofit Kit.**



Check valve and temperature resistant flex hoses between the soot rings at damper casing.



# Assembly and Installation Manual

## SOOT RETROFIT KIT D + E



### WARNING

The following steps should only be done while the EGC System is completely out of operation!

The following working steps are the same regardless of the size of the damper. Only the size of the check valve varies between 3/4" and 1".

#### Step 1:

**Disconnect the hose leading to the cabinet; remove the short rubber hose and the hose nozzles, bends and t-piece.**



If the bends, T-Piece 3/4" or hose nozzle are no longer usable, new ones, are enclosed with the set. This was done to ensure that the new connections are all tight and safe.

#### Step 2:

**Clean the thread of the bends at the end of the soot-ring-lines, to make sure that the new parts go well**



#### Step 3:

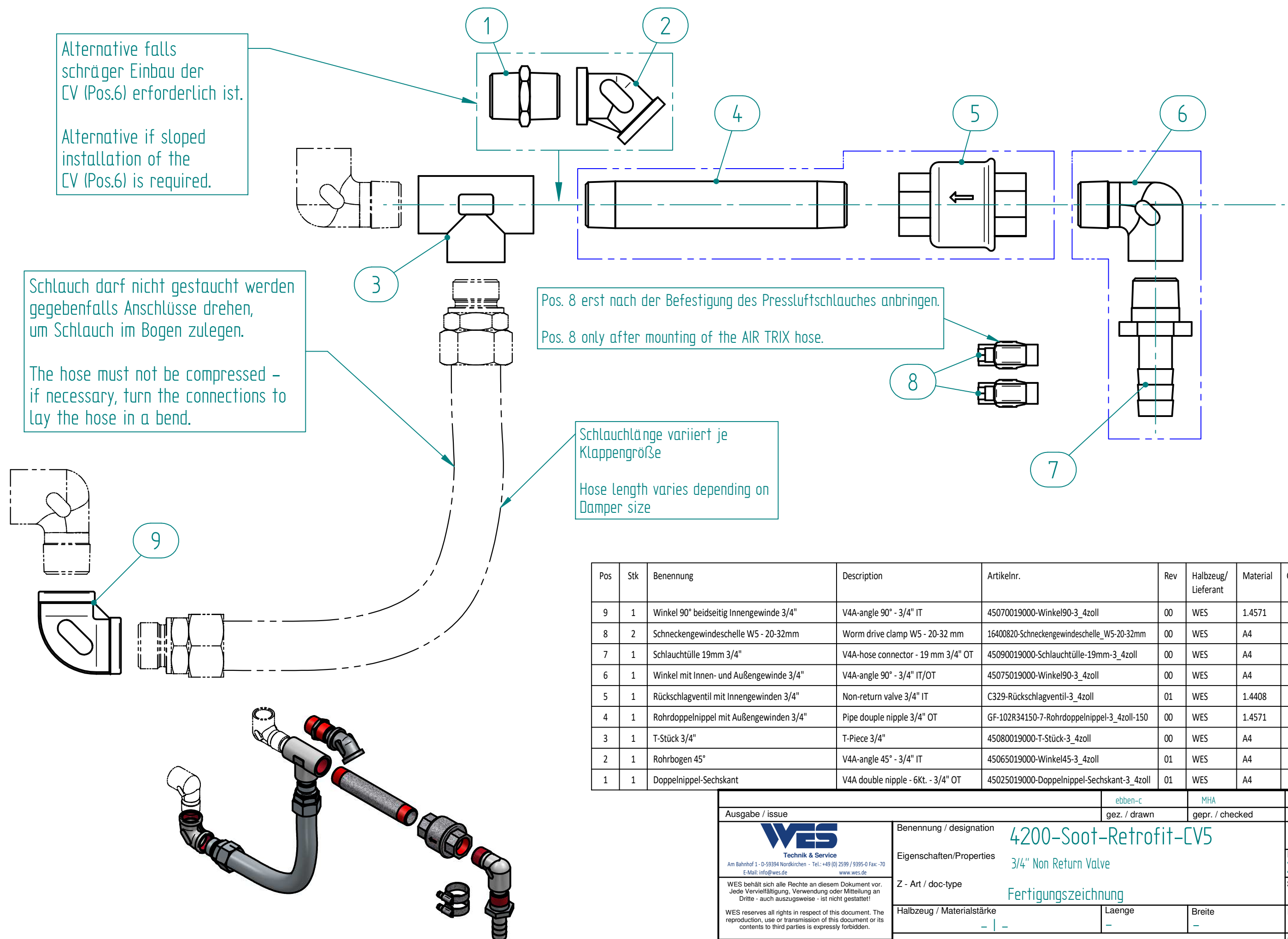
**Install the new parts as shown in the drawing**

**4200-Soot-retrovit-CV5-00 - Soot Retrofit (Kit D) with check valve 3/4"**


**4200-Soot-retrovit-CV6-00 - Soot Retrofit (Kit E) with check valve 1"**



**The instructions on the drawings and the following notes must be observed!**



Pos	Stk	Benennung	Description	Artikelnr.	Rev	Halbzeug/ Lieferant	Material	Gew/St	Gew/Zeile
9	1	Winkel 90° beidseitig Innengewinde 3/4"	V4A-angle 90° - 3/4" IT	45070019000-Winkel90-3_4zoll	00	WES	1.4571	0,092 kg	0,092 kg
8	2	Schneckengewindeschelle W5 - 20-32mm	Worm drive clamp W5 - 20-32 mm	16400820-Schneckengewindeschelle_W5-20-32mm	00	WES	A4	0,020 kg	0,041 kg
7	1	Schlauchtülle 19mm 3/4"	V4A-hose connector - 19 mm 3/4" OT	45090019000-Schlauchtülle-19mm-3_4zoll	00	WES	A4	0,137 kg	0,137 kg
6	1	Winkel mit Innen- und Außengewinde 3/4"	V4A-angle 90° - 3/4" IT/OT	45075019000-Winkel90-3_4zoll	00	WES	A4	0,147 kg	0,147 kg
5	1	Rückschlagventil mit Innengewinden 3/4"	Non-return valve 3/4" IT	C329-Rückschlagventil-3_4zoll	01	WES	1.4408	0,727 kg	0,727 kg
4	1	Rohrdoppelnippel mit Außengewinden 3/4"	Pipe double nipple 3/4" OT	GF-102R34150-7-Rohrdoppelnippel-3_4zoll-150	00	WES	1.4571	0,235 kg	0,235 kg
3	1	T-Stück 3/4"	T-Piece 3/4"	45080019000-T-Stück-3_4zoll	00	WES	A4	0,258 kg	0,258 kg
2	1	Rohrbogen 45°	V4A-angle 45° - 3/4" IT	45065019000-Winkel45-3_4zoll	01	WES	A4	0,059 kg	0,059 kg
1	1	Doppelnippel-Sechskant	V4A double nipple - 6Kt. - 3/4" OT	45025019000-Doppelnippel-Sechskant-3_4zoll	01	WES	A4	0,084 kg	0,084 kg

Ausgabe / issue		ebben-c	MHA	14.05.2020
		gez. / drawn	gepr. / checked	Datum / date
 Am Bahnhof 1 - D-59394 Nordkirchen - Tel.: +49 (0) 2599 / 9395-0 Fax: -70 E-Mail: info@wes.de www.wes.de		Benennung / designation		Maßstab:
		Eigenschaften/Properties		Masse:
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		Halbzeug / Materialstärke		Freigegeben
		Laenge	Breite	Material
		- 1 -	-	-
Maße ohne Toleranzangaben / Dim. without tolerances:		Dokumentenummer		COMPACT-V13
ISO 2768mk + EN ISO 13920 B+F		Rev. Index		Blatt / sheet
		4200-Soot-Retrofit-CV5		01 1 / 1 A3

Alternative falls  
schräger Einbau der  
CV (Pos.6) erforderlich ist.

Alternative if sloped  
installation of the  
CV (Pos.6) is required.

Schlauch darf nicht gestaucht werden  
gegebenfalls Anschlüsse drehen,  
um Schlauch im Bogen zulegen.

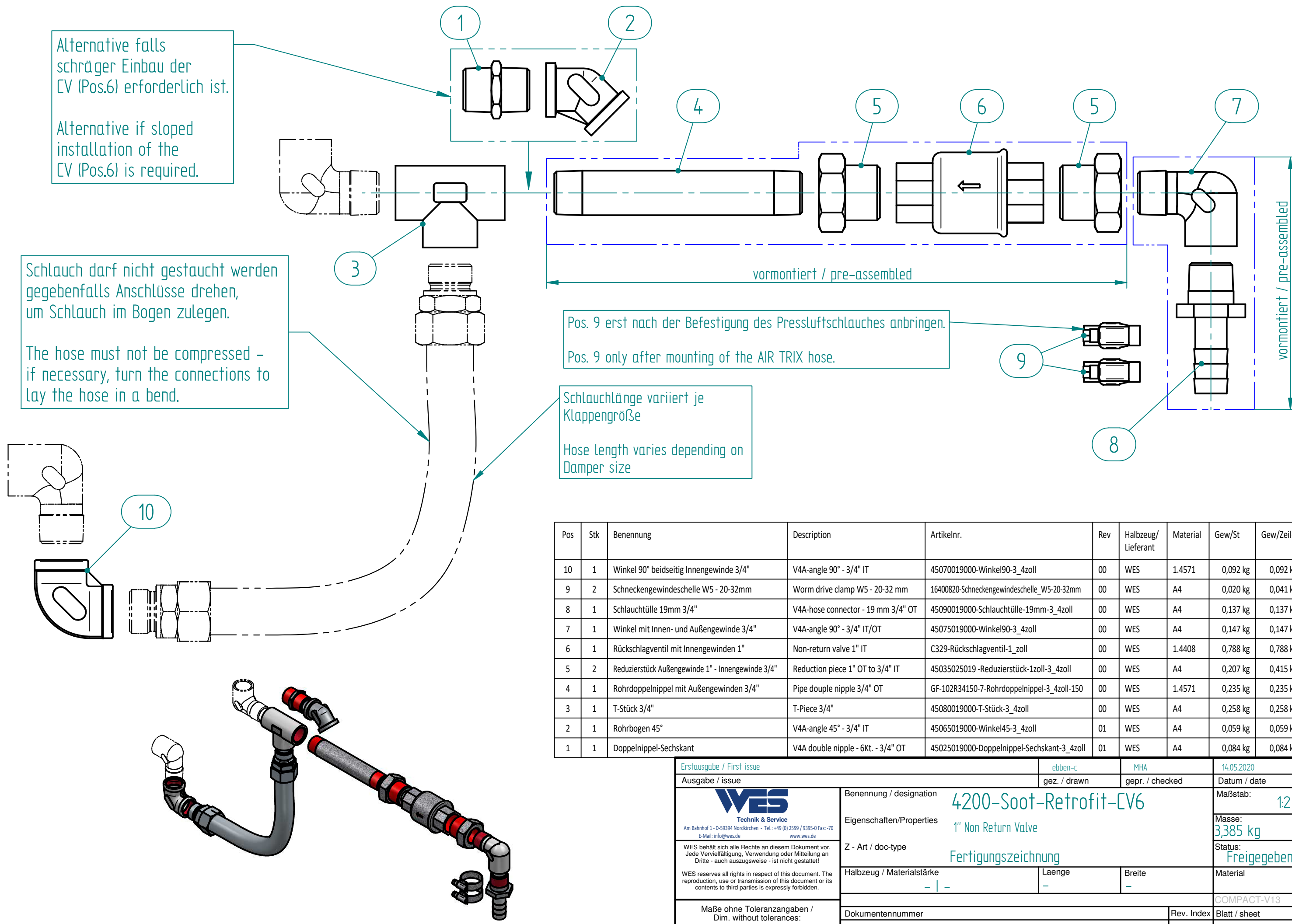
The hose must not be compressed -  
if necessary, turn the connections to  
lay the hose in a bend.

Pos. 9 erst nach der Befestigung des Pressluftschlauches anbringen.

Pos. 9 only after mounting of the AIR TRIX hose.

Schlauchlänge variiert je  
Klappengröße

Hose length varies depending on  
Damper size



Pos	Stk	Benennung	Description	Artikelnr.	Rev	Halbzeug/ Lieferant	Material	Gew/St	Gew/Zeile
10	1	Winkel 90° beidseitig Innengewinde 3/4"	V4A-angle 90° - 3/4" IT	45070019000-Winkel90-3_4zoll	00	WES	1.4571	0,092 kg	0,092 kg
9	2	Schneckenwindeschelle W5 - 20-32mm	Worm drive clamp W5 - 20-32 mm	16400820-Schneckenwindeschelle_W5-20-32mm	00	WES	A4	0,020 kg	0,041 kg
8	1	Schlauchtülle 19mm 3/4"	V4A-hose connector - 19 mm 3/4" OT	45090019000-Schlauchtülle-19mm-3_4zoll	00	WES	A4	0,137 kg	0,137 kg
7	1	Winkel mit Innen- und Außengewinde 3/4"	V4A-angle 90° - 3/4" IT/OT	45075019000-Winkel90-3_4zoll	00	WES	A4	0,147 kg	0,147 kg
6	1	Rückschlagventil mit Innengewinden 1"	Non-return valve 1" IT	C329-Rückschlagventil-1_zoll	00	WES	1.4408	0,788 kg	0,788 kg
5	2	Reduzierstück Außengewinde 1" - Innengewinde 3/4"	Reduction piece 1" OT to 3/4" IT	45035025019-Reduzierstück-1zoll-3_4zoll	00	WES	A4	0,207 kg	0,415 kg
4	1	Rohrdoppelnippel mit Außengewinden 3/4"	Pipe double nipple 3/4" OT	GF-102R34150-7-Rohrdoppelnippel-3_4zoll-150	00	WES	1.4571	0,235 kg	0,235 kg
3	1	T-Stück 3/4"	T-Piece 3/4"	45080019000-T-Stück-3_4zoll	00	WES	A4	0,258 kg	0,258 kg
2	1	Rohrbogen 45°	V4A-angle 45° - 3/4" IT	45065019000-Winkel45-3_4zoll	01	WES	A4	0,059 kg	0,059 kg
1	1	Doppelnippel-Sechskant	V4A double nipple - 6Kt. - 3/4" OT	45025019000-Doppelnippel-Sechskant-3_4zoll	01	WES	A4	0,084 kg	0,084 kg

Erstausgabe / First issue		ebben-c	MHA	14.05.2020
Ausgabe / issue		gez. / drawn	gepr. / checked	Datum / date
 Am Bahnhof 1 - D-59394 Nordkirchen - Tel.: +49 (0) 2599 / 9395-0 Fax: -70 E-Mail: info@wes.de www.wes.de  WES behält sich alle Rechte an diesem Dokument vor. Jede Vervielfältigung, Verwendung oder Mitteilung an Dritte - auch auszugsweise - ist nicht gestattet!  WES reserves all rights in respect of this document. The reproduction, use or transmission of this document or its contents to third parties is expressly forbidden.		Benennung / designation <b>4200-Soot-Retrofit-CV6</b>		Maßstab: <b>1:2</b>
		Eigenschaften/Properties <b>1" Non Return Valve</b>		Masse: <b>3,385 kg</b>
Z - Art / doc-type <b>Fertigungszeichnung</b>		Status: <b>Freigegeben</b>		
Halbzeug / Materialstärke <b>- 1 -</b>		Laenge <b>-</b>	Breite <b>-</b>	Material <b>COMPACT-V13</b>
Maße ohne Toleranzangaben / Dim. without tolerances:  ISO 2768mk + EN ISO 13920 B+F		Dokumentennummer <b>4200-Soot-Retrofit-CV6</b>	Rev. Index <b>00</b>	Blatt / sheet <b>1 / 1 A3</b>



# Assembly and Installation Manual

## SOOT RETROFIT KIT D + E



**NOTE A: The stainless steel-meshed PTFE hose must not be pressed between the two connections in such a way that it would be compressed. This can cause damage or kinking of the hose.**



The connecting parts, the 90° bend and the t-piece, must be turned so that the hose is laid in a large elbow without tension, as shown on this picture.

**NOTE B: If there is a collision with the protective hood –**

**the 45° angle can be used to angle the position of the check valve.**



We therefore recommend assembling the parts for testing, before they are completely sealed.



# Assembly and Installation Manual

## SOOT RETROFIT KIT D + E



**IMPORTANT NOTE FOR  
USE OF TEFLEON TAPE  
ON RIGHT-HAND  
THREADS:**

**If you let the thread point in your  
direction, the teflon tape must be  
wound up in a clockwise direction**

The WEICONLOCK Pipe- and  
Threadsealing can be used as an  
alternative

Step 4:

**Reconnect the hose from the cabinet to the newly installed hose nozzle.**



**Note the flow direction of the  
check valve, this is marked with  
an arrow on the housing**



**Check all mounted and installed  
parts for tight fit.**

**After restarting the EGC, check  
all hoses, pipes and fittings for  
leaks.**

# Assembly and Installation Manual

## SOOT RETROFIT KIT F

### SOOT LINE between Louver damper DN2800 CONTROL CABINET COC-Pleiger



#### Damper Soot-cleaning system

The manufacturer explains:

In systems with identical functions, the risk has been determined that the rubber hoses installed, do not provide adequate protection against back-flowing flue gas under temperature.

The components mentioned above may no longer be operated without the subsequent retrofit.

For questions, contact your OEM scrubber maker.

The manufacturer apologizes to customers regarding this instruction and clearly states the risk:



#### **WARNING**

While running the EGC system with the WES Louver Damper DN2800 including Control Cabinet (COC) from Pleiger, there is a risk of damage to the control cabinet, its soot-line-piping to the damper and all upstream components of the soot-line supply.

This is triggered by the possibility of hot flue gas flowing back from the soot-pipes at the damper through the cabinet towards the compressor.

## **This causes a safety risk for man and machine!**

To prevent this, the following retrofit-measures must be taken.



When the EGC system is routinely stopped, the retrofitting measures described below must be carried out.

**RETROFIT KIT F (XAAC069486) contains the following parts:**

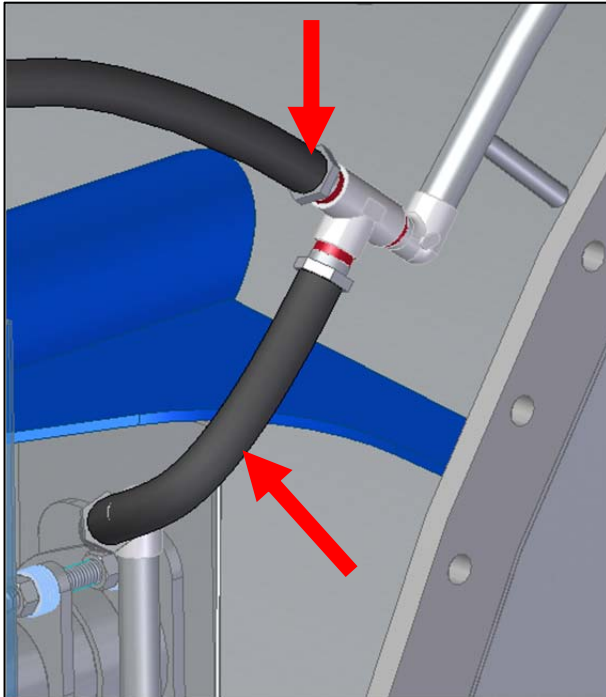
Pos.	pcs.	Item no.	Description
1	2	100484	4200-Soot retrofit-CV4 check valve + SS-flex hoses with mounting parts
2	1	100310	12m Teflon thread sealing tape (PTFE)
3	1	100326	Labelling and packaging in sacks
4	1	Doc	this instruction

# Assembly and Installation Manual

## SOOT RETROFIT KIT F

### Actual state

The ends of the soot ring line are connected with a rubber hose and from one end there is a connection to the Pleiger control cabinet or soot block.



*actuator side (3d-model)*



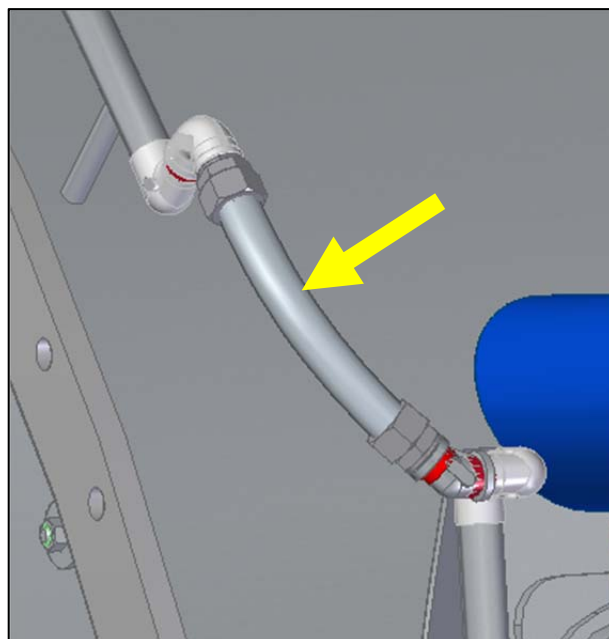
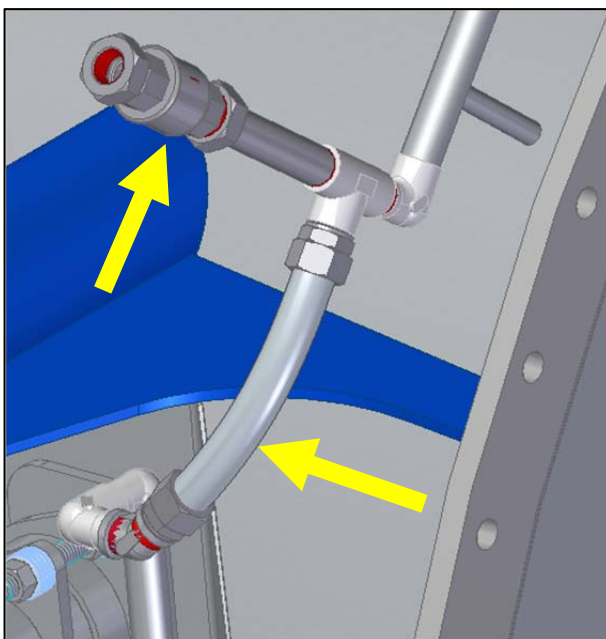
*back side (original)*

### Retrofit work

At the lower and upper part of the damper, the short rubber hose is to be replaced on both sides and a non-return valve is inserted on the actuator side before the hose connection to the cabinet/soot block.

### Target State

**Situation after installation of Retrofit Kit.**



Check valve and temperature resistant flex hoses between the soot rings at damper casing.

# Assembly and Installation Manual

## SOOT RETROFIT KIT F

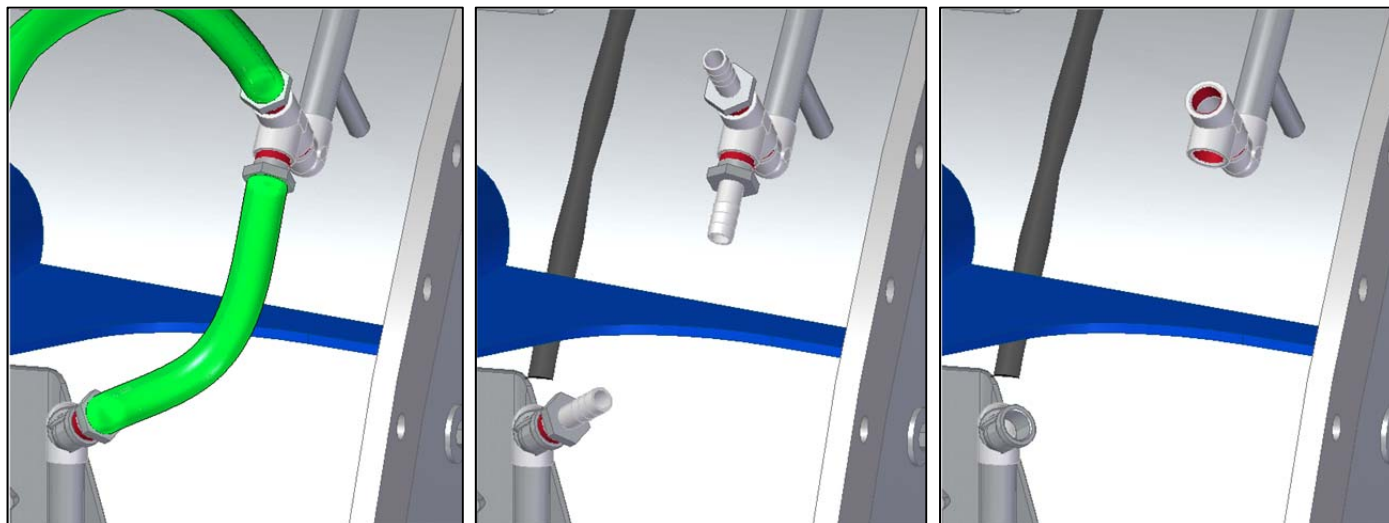


### WARNING

The following steps should only be done while the EGC System is completely out of operation!

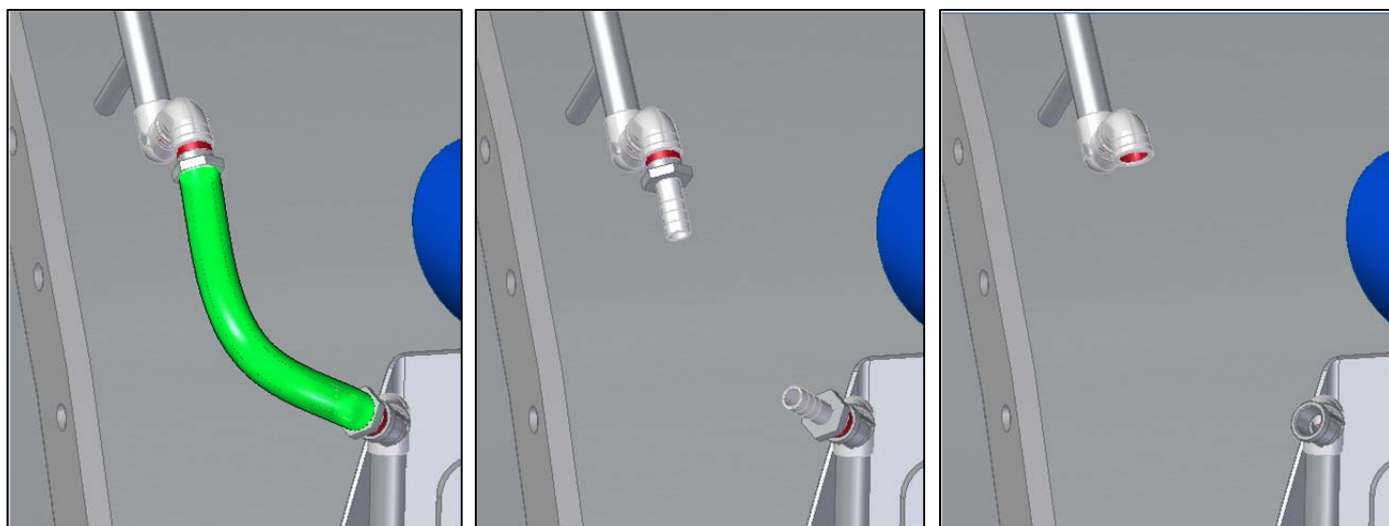
Step 1:

**Actuator side - disconnect the hose leading to the cabinet/soot block; remove the short rubber hose and the hose nozzles.**



Step 2:

**Back side - remove the short rubber hose and the hose nozzles.**



Step 3:

**Clean the thread of the bends and the t-piece, to make sure that the new parts go well.**

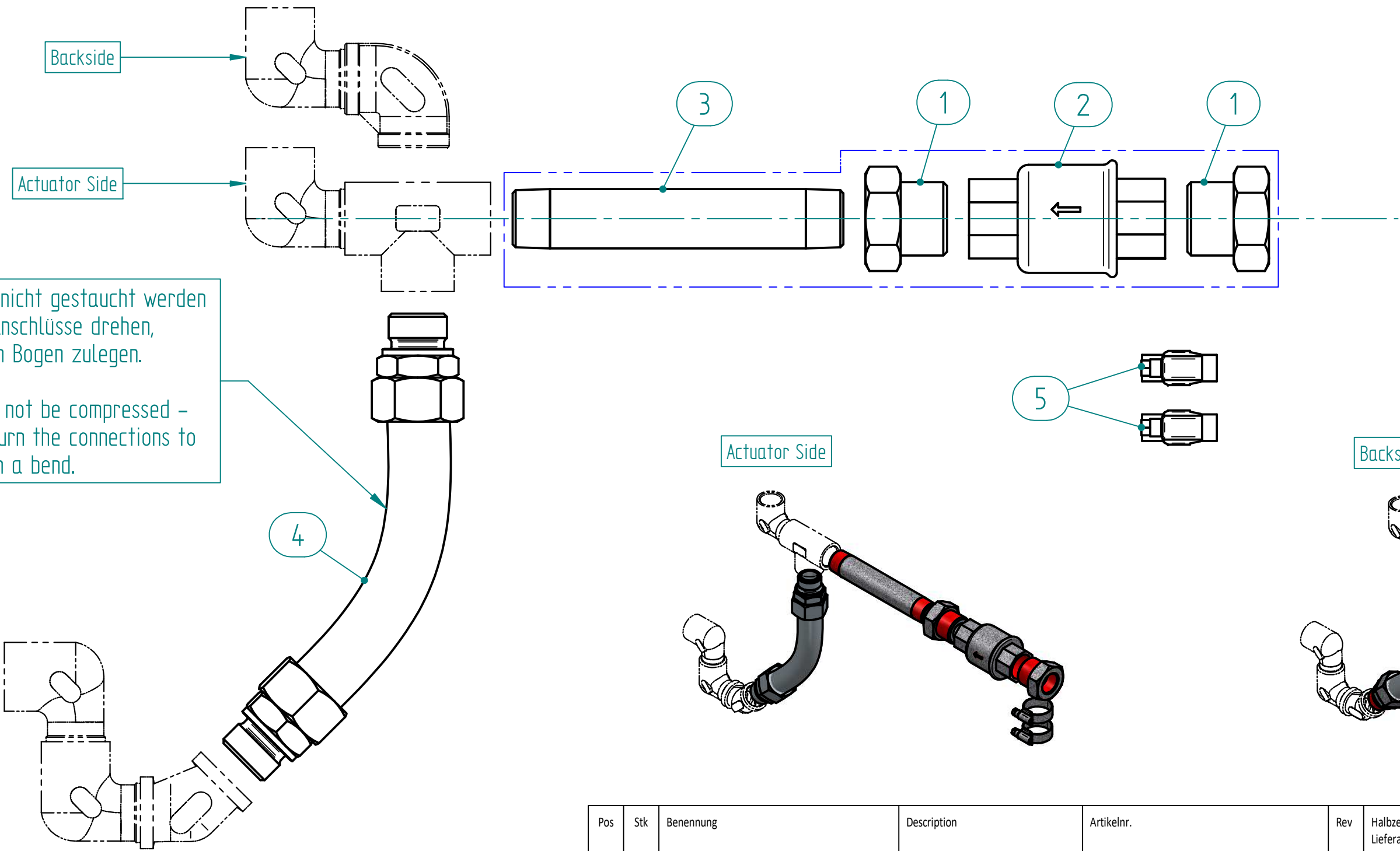
Step 4:

**Install the new parts as shown in the drawing 4200-Soot-retrovit-CV4-00**



**The instructions on the drawings and the following notes must be observed!**






Schlauch darf nicht gestaucht werden  
gegebenfalls Anschlüsse drehen,  
um Schlauch im Bogen zulegen.

The hose must not be compressed –  
if necessary, turn the connections to  
lay the hose in a bend.

Pos	Stk	Benennung	Description	Artikelnr.	Rev	Halbzeug/ Lieferant	Material	Gew/St	Gew/Zeile
5	2	Schneckenwindeschelle W5 - 20-32mm	Worm drive clamp W5 20-32mm	16400820-Schneckenwindeschelle_W5-20-32mm	00	WES	A4	0,020 kg	0,041 kg
4	2	Hydra-Ringwellschlauch, normal gewellt	Hydra-Corrugated ring hose	DN20-Hydra-Ringwellschlauch	00	WES	1.4404	0,389 kg	0,389 kg
3	1	Rohrdoppelnippel mit Außengewinden 3/4"	Pipe double nipple 3/4"OT	GF-102R34150-7-Rohrdoppelnippel-3_4zoll-150	00	WES	1.4571	0,235 kg	0,235 kg
2	1	Rückschlagventil mit Innengewinden 1"	Non-return valve 1" IT	C329-Rückschlagventil-1_zoll	00	WES	1.4408	0,788 kg	0,788 kg
1	2	Reduzierstück Außengewinde 1" - Innengewinde 3/4"	Reduction piece 1" OT to 3/4" IT	45035025019 -Reduzierstück-1zoll-3_4zoll	00	WES	A4	0,207 kg	0,415 kg

Erstausgabe / First issue		ebben-c		MHA	13.05.2020	
Ausgabe / issue		gez. / drawn		gepr. / checked	Datum / date	
<div><p><b>Technik &amp; Service</b></p><p>Am Bahnhof 1 - D-59394 Nordkirchen - Tel.: +49 (0) 2599 / 9395-0 Fax: -70 E-Mail: info@wes.de      www.wes.de</p><p>WES behält sich alle Rechte an diesem Dokument vor. Jede Vervielfältigung, Verwendung oder Mitteilung an Dritte - auch auszugsweise - ist nicht gestattet!</p><p>WES reserves all rights in respect of this document. The reproduction, use or transmission of this document or its contents to third parties is expressly forbidden.</p></div>	Benennung / designation			Maßstab:		
	Eigenschaften/Properties			Masse:		
	Z - Art / doc-type			Status:		
	Halbzeug / Materialstärke			Laenge	Breite	Material
Maße ohne Toleranzangaben / Dim. without tolerances:		Dokumentenummer			Rev. Index	Blatt / sheet
ISO 2768mk + EN ISO 13920 B+F						

# Assembly and Installation Manual

## SOOT RETROFIT KIT F



**IMPORTANT NOTE FOR  
USE OF TEFLEON TAPE  
ON RIGHT-HAND  
THREADS:**

**If you let the thread point in your  
direction, the teflon tape must be  
wound up in a clockwise direction**

As an alternative an adequate  
Pipe- and Threadsealing can be  
used ( $T_{min} = 200^{\circ}\text{C}$ )

Step 5:

**Reconnect the hose from the cabinet/soot block to the newly installed hose  
nozzle.**



**Note the flow direction of the  
check valve, this is marked with  
an arrow on the housing**



**Check all mounted and installed  
parts for tight fit.**

**After restarting the EGC, check  
all hoses, pipes and fittings for  
leaks.**