Installation Instructions

Replacement Buffer Unit

Program 0365 / 0375

Order-Number

03-K032-0045, for buffer units with piston rod Ø25 mm

Installation Instructions

Replacement Buffer Unit

Program 0365 / 0375

Contents

Installation Instructions

Replacement Buffer Unit

Program 0365 / 0375

1 Target group for the mounting instructions

These instructions are addressed to qualified staff that are installing and commissioning festoon systems, who are instructed in carrying out respective maintenance and repair works and who are familiar with the prescriptions about operational safety and prevention of accidents.

2 General advice

2.1 Explication of symbols

Safety and hazard information is identified in these assembly and operating instructions by symbols. Signal words are used to indicate the degree of hazard in these safety instructions. Always observe safety and hazard information and work carefully to avoid accidents, bodily harm or property damage!

DANGER!

… indicates an immediately hazardous situation, which if not avoided, may result in death or serious injury.

WARNING!

… indicates a possibly hazardous situation, which if not avoided, may result in death or serious injury.

CAUTION!

… indicates a possibly hazardous situation, which if not avoided, may result in moderate or minor injury and property damage.

NOTICE!

Advice and recommendations:

… refers to useful tips and recommendations as well as information for efficient and trouble-free operation.

2.2 About this document

These instructions describe the safe and proper mounting of a replacement buffer unit on a festoon system. The safety advice and instructions as well as the local accident prevention regulations for the operational area and general safety regulations must be observed.

Please read through the instructions completely prior to any works at the assembly groups, especially the chapter about safety and the respective safety advice!

2.3 Other valid documents

As a supplement to the mounting instructions the operator must moreover observe the following documentations (if applicable):

- MAL0300-0004 Festoon Systems for I-Beams - 0365, 0370, 0375

2.4 Limitation of liability

All information and instructions in this manual have been compiled with due regard to the standards and regulations in force, best engineering practice, and the findings and experience we have accumulated over many years.

The manufacturer is in no way liable for damages resulting from:

- Failure to comply with this manual
- Improper use
- Use by untrained personnel
- Unauthorized modifications
- Technical changes
- Use of unauthorized spare parts and accessories.

The actual scope of delivery may differ from the explanations and illustrations described here for special variants, if additional order options are utilized, or due to the latest technical changes.

The obligations agreed upon in the delivery agreement and our General Terms of Business apply, as do the delivery conditions of the manufacturer and all regulations applicable at the time the contract was concluded.

All products are subject to technical modifications in the context of improvement of function and further development.

2.5 Copyright

2.6 Spare parts

WARNING!

Safety risk due to wrong spare parts!

Wrong or faulty spare parts can result in damages, malfunctions or complete failure as well as impair safety.

→ Use only original spare parts of the manufacturer!

The application of unapproved spare parts will involve the expiry of all claims for warranty, service, damages or liability by the manufacturer or his representative, salesman or agent.

2.7 Disposal

If agreements have not been made for return or disposal, care for recycling of disassembled components after proper dismounting:

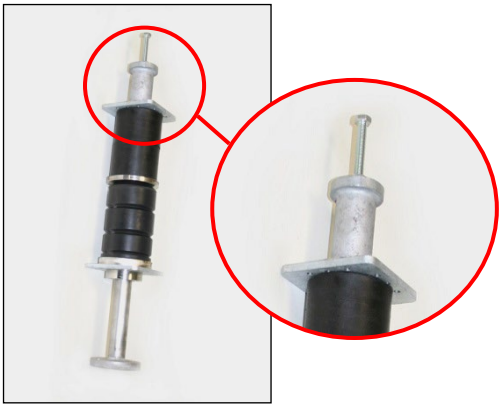
- Scrap remaining metallic material
- Give plastic elements to plastic recycling
- Dispose of remaining components according to material consistence

3 Required tools

Screw wrenches
size 13; 2 x size 19.

Torque wrench,
socket size 13.

Medium strength thread locker
(e.g. LOCTITE 270).



Mounting tool 03-W100-0491 to compress the buffer unit
(Included with replacement buffer unit)

4 Dismounting the existing buffer unit

NOTICE!

Appropriate replacement buffer unit available?

Prior to starting work, check if the replacement buffer unit is appropriate. See Chapter 4.2.

4.1 Safety

WARNING!

Danger of injury due to impact!

When working on the festoon system, there is a risk of being struck by extending, moving parts of the system.

→ Do not enter the danger zone of the festoon system while the system is being operated

→ Keep unauthorized personnel away from the working area

Before entering the danger zone:

→ Before working on the festoon system, the system must be disconnected from power using the main switch, and secured against unauthorized, unintentional, and/or erroneous activation

→ When entering systems with damping devices installed, these must be released beforehand

WARNING!

Danger of injury due to falling parts!

In the area below the festoon system, there is a risk of being hit by tools or heavy machine parts lost by the personnel while working above.

→ Block off the dangerous area under the system before starting work

WARNING!

Danger of injury due to falling parts!

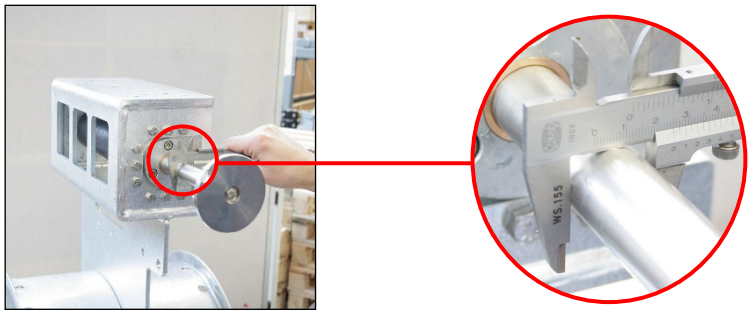
Chemical thread locker works only once, after curing. Screws that are detached and retightened after the thread locker is cured are not locked safely anymore. They may loosen and fall out of their holes. There is a danger of being hit by heavy machine parts falling down, if screws are lost.

→ Never detach and retighten screws that have been fixed already!

→ Always apply new chemical thread locker before retightening screws

4.2 Checking the fit of the replacement buffer unit

The fit of the replacement buffer unit to the existing cable trolley can be validated by measuring the diameter of the piston rod:



Piston rod diameter **must be 25 mm**.

Buffer units with piston rod diameter 32 mm need a different replacement buffer unit.

NOTICE!

Reclaim any concealed defects or damage in time

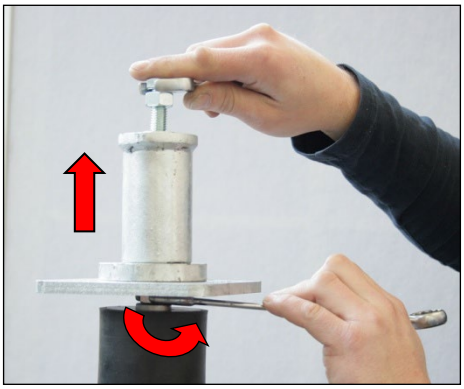
Reclaim any concealed defects as soon as they have been detected, since damages can only be claimed within the valid time limit!

4.3 Removing the mounting tool from replacement buffer unit

Take the pre-mounted replacement buffer unit from the transportation box. The mounting tool 03-W100-0491 is located on the rear end of the replacement buffer unit. It is needed to compress the buffer unit.

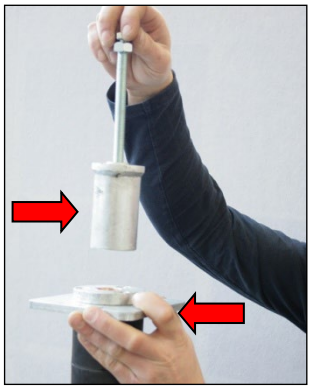
Grip the clamping screw (top) with wrench size 19. With a second wrench size 19 loosen the clamping nut until it is free.

Turn the clamping nut anti-clockwise until it reaches the screw head of the clamping screw.



Slide bearing flange and sleeve towards the screw head (top). Grip the clamping screw, and loosen the inner lock nut at the end of the buffer unit with a second wrench size 19.

Fully unscrew the clamping screw in the buffer unit and remove the mounting tool.



The mounting tool and bearing flange is now loose and must be held safely to prevent damage/ falling!

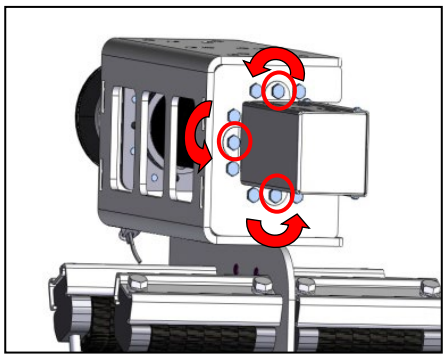
4.4 Removing the protection cover from the cable trolley

WARNING!

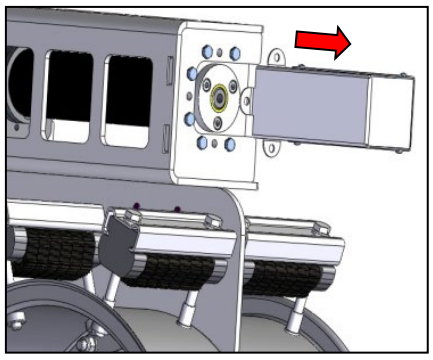
Danger of injury due to falling parts!

In the area below the festoon system, there is a risk of being hit by tools or heavy machine parts lost by the personnel while working above.

→ Block off the dangerous area under the system before starting work



Remove 3 screws M8 x 16 from the protection cover of the buffer unit on the backside of damping device. Wrench size: 13.



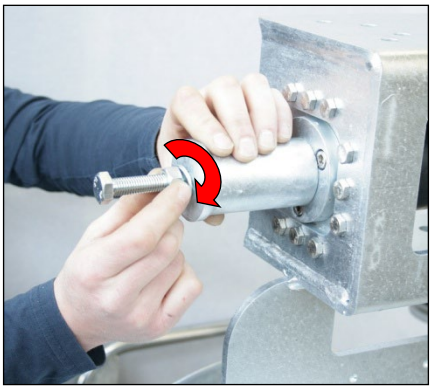
Fully remove the protection cover.

4.5 Compressing the buffer unit for removal

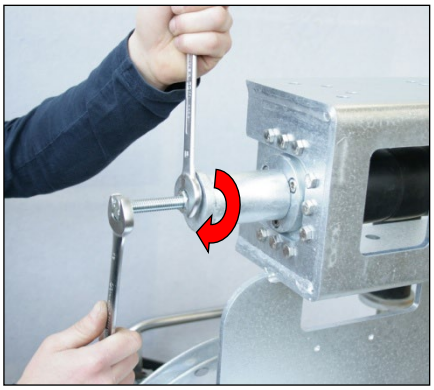
Check the position of the inner locknut before attaching the mounting tool to the buffer unit. There must be at least 6 threads (> 10mm).

Screw the clamping screw into the buffer unit by hand 6-8 turns before tightening the inner lock nut.

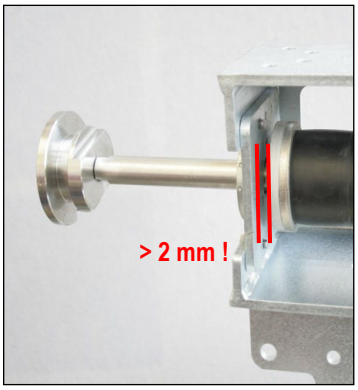
Grip the clamping screw with a wrench and tighten the inner lock nut with a second wrench.



Turn the clamping nut by hand until the sleeve is fixed on the flange.



Grip the clamping screw and turn the clamping nut until the buffer package is compressed for removal.



A gap of more than 2 mm as shown proves that the buffer unit is sufficiently compressed for removal.

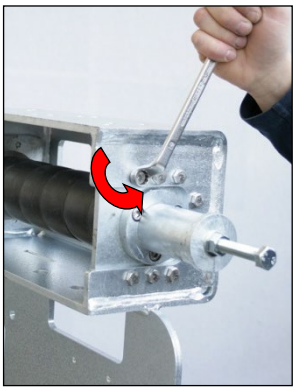
4.6 Removing the buffer unit

WARNING!

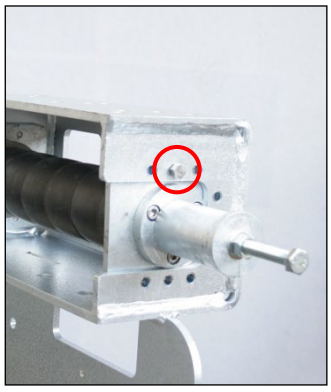
Danger of injury due to falling parts!

In the area below the festoon system, there is a risk of being hit by tools or heavy machine parts lost by the personnel while working above.

→ Block off the dangerous area under the system before starting work



Remove screws M8 x 16 from the **rear side** bearing flange….

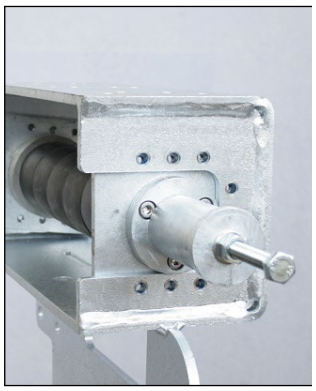


… leaving one screw in the flange to prevent falling! Wrench size: 13

Remove screws M8 x 16 from the **front side** bearing flange...

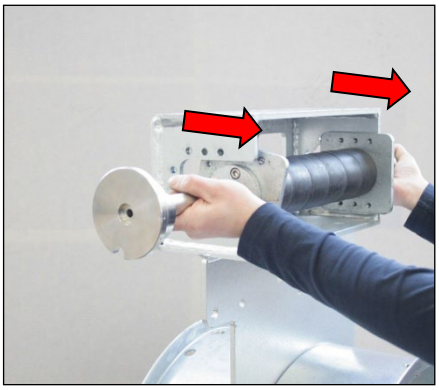
… leaving one screw in the flange to prevent falling!

Now remove the remaining screws from the housing …

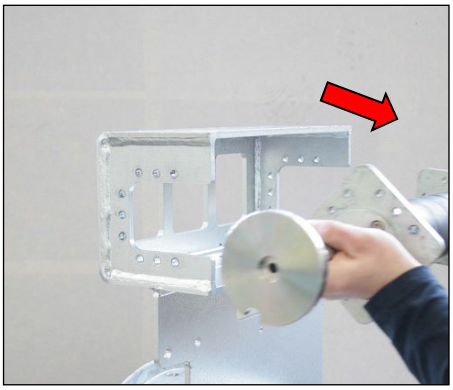


… one on the backside …

… and one on the frontside.

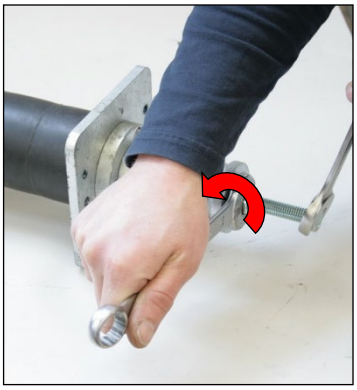


The buffer unit can now be fully removed …

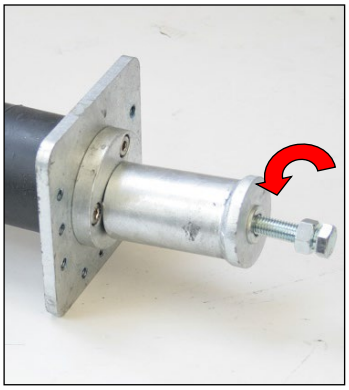


… from the housing.

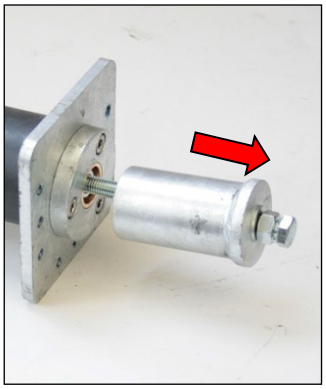
4.7 Removing the mounting tool for reuse



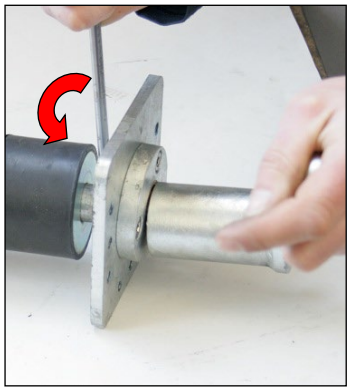
Releasing the pressure from the buffer unit: grip clamping screw and turn clamping nut anticlockwise.



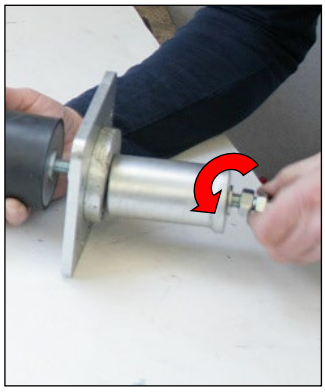
Turn back the clamping nut to the screw head as shown.



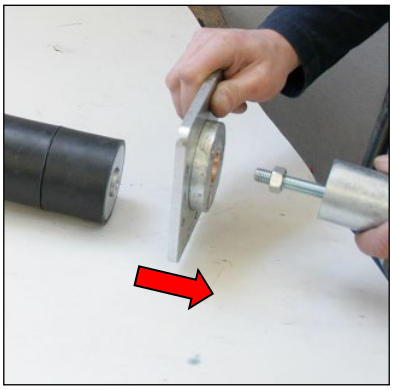
Slide the sleeve towards the screw head.



Slide the bearing flange also towards the screw head. Grip the clamping screw and loosen the inner lock nut at the end of the buffer unit.



Fully unscrew the clamping screw in the buffer unit and remove the mounting tool.



The mounting tool and bearing flange is now loose and must be held safely to prevent damage/ falling!

WARNING!

The dismounted buffer unit must not be used any longer.

→ Scrap remaining metallic material

→ Give plastic elements to plastic recycling

5 Mounting the replacement buffer unit

Required tools: see Chapter 3.

NOTICE!

Appropriate replacement buffer unit available?

Prior to starting work, check if the replacement buffer unit is appropriate. See Chapter 4.2.

5.1 Safety

WARNING!

Danger of injury due to impact!

When working on the festoon system, there is a risk of being struck by extending, moving parts of the system.

→ Do not enter the danger zone of the festoon system while the system is being operated

→ Keep unauthorized personnel away from the working area

Before entering the danger zone:

→ Before working on the festoon system, the system must be disconnected from power using the main switch, and secured against unauthorized, unintentional, and/or erroneous activation

→ When entering systems with damping devices installed, these must be released beforehand

WARNING!

Danger of injury due to falling parts!

In the area below the festoon system, there is a risk of being hit by tools or heavy machine parts lost by the personnel while working above.

→ Block off the dangerous area under the system before starting work

WARNING!

Danger of injury due to falling parts!

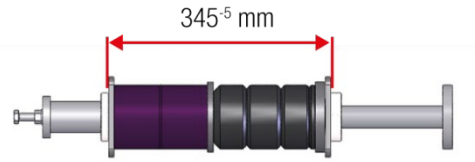
Chemical thread locker works only once, after curing. Screws that are detached and retightened after the thread locker is cured are not locked safely anymore. They may loosen and fall out of their holes. There is a danger of being hit by heavy machine parts falling down, if screws are lost.

→ Never detach and retighten screws that have been fixed already!

→ Always apply new chemical thread locker before retightening screws

5.2 Compressing the replacement buffer unit

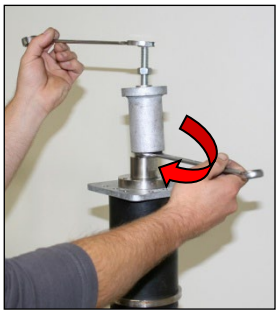
Prior to mounting, the replacement buffer unit must be compressed to the proper length.



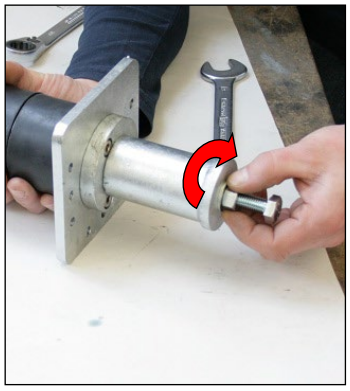
The outside distance from front bearing flange to rear bearing flange must be **345 mm/ -5 mm**, otherwise the buffer unit can't be inserted into the buffer housing.

Check the position of the inner locknut before attaching the mounting tool to the replacement buffer unit. There must be at least 6 threads (>10 mm).

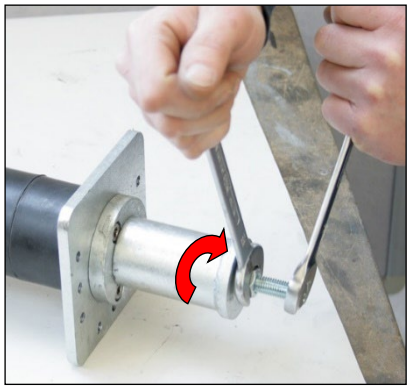
Screw the clamping screw by hand 6-8 turns into the buffer unit before tightening the inner lock nut.



Grip the clamping screw, tighten the lock nut against the buffer unit.

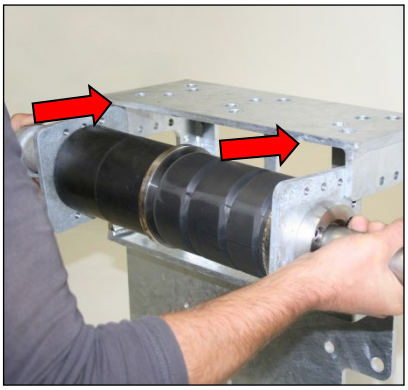


Turn the clamping nut by hand until the sleeve is fixed on the flange.

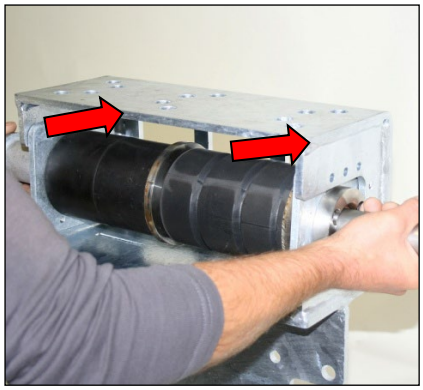


Grip the clamping screw and turn the clamping nut, until the buffer package is sufficiently compressed for mounting.

5.3 Mounting the replacement buffer unit



Fully insert the buffer unit …



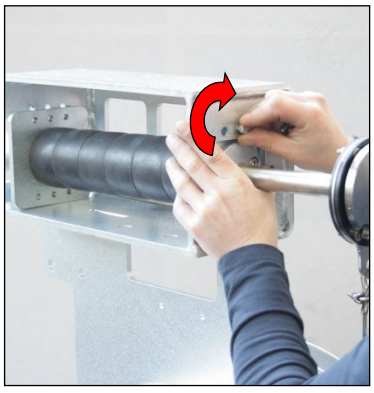
… into the buffer housing as shown.

Apply medium strength thread locker on all screws, e.g. LOCTITE 270.

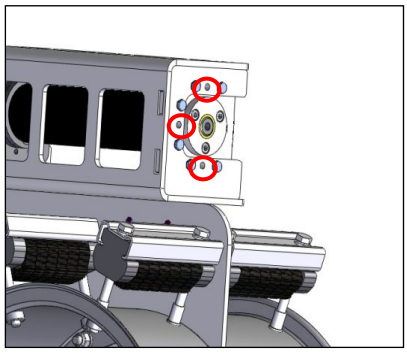
NOTICE!

Remember to keep the holes for the protection cover clear!

On the back side, the protection cover must be fastened. Keep these holes clear when fastening the buffer unit. See Chapter 5.5.

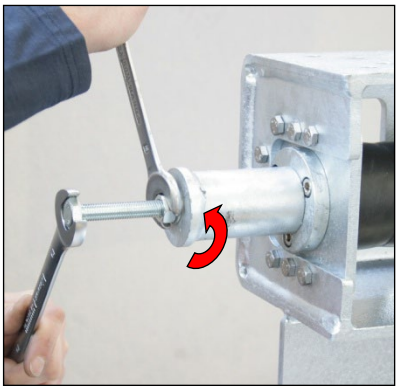


Put the screws through the housing into the front side bearing shield and tighten by hand.
Repeat the procedure on the back side.

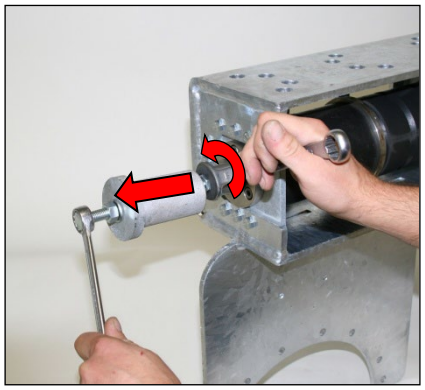


Keep these holes clear!

5.4 Expanding the replacement buffer unit



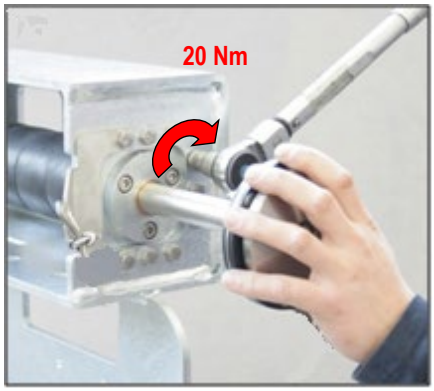
Grip the clamping screw, release the clamping nut.



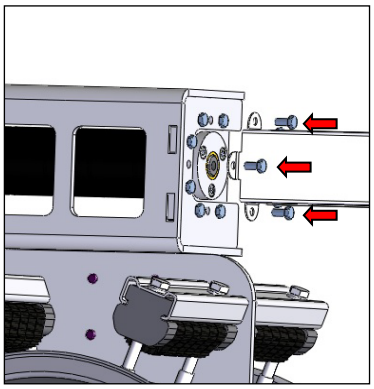
Slide sleeve towards the clamping screw head (left). Grip clamping screw and loosen inner lock nut at the end of the buffer unit.

Fully unscrew the clamping screw from the buffer unit. The mounting tool is now loose and can be removed.

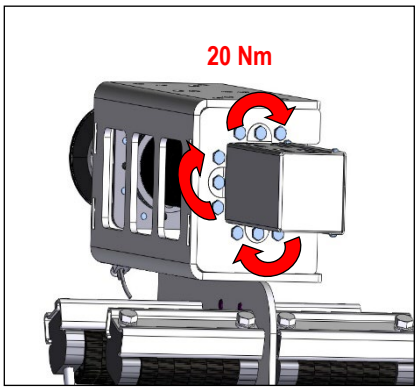
5.5 Final mounting steps



Tighten all screws on the front and back side of the buffer housing with a torque wrench, torque 20 Nm.



Position the protection cover for the buffer unit. Apply medium strength thread locker to the screws.



Fully tighten all 3 screws, torque 20 Nm.

WARNING!

Danger of injury due to disabled safety devices or tools left at the workplace!

→ Safety devices that have been removed for the control of the inoperative system must be remounted and checked after termination of these works.

→ Collect any used tools or material after completion and check your inventory

→ Check accurate function of the system with slow operation after the repair

Conductix-Wampfler GmbH
Rheinstraße 27 + 33
79576 Weil am Rhein - Märkt
Germany

Phone: +49 (0) 7621 662-0
Fax: +49 (0) 7621 662-144
info.de@conductix.com
www.conductix.com

Importer for the United Kingdom:
Conductix-Wampfler Ltd.
1, Michigan Avenue
Salford
M50 2GY
United Kingdom

Phone: +44 161 8480161
Fax: +44 161 8737017
info.uk@conductix.com
www.conductix.com