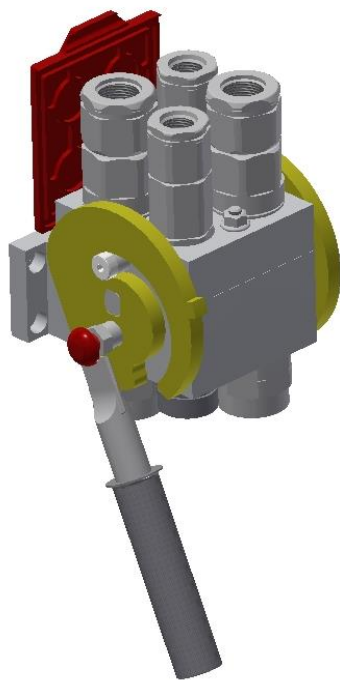




## Manual for operating a **QUICKVOS™** multi-coupling system



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## 1. Introductory remarks

Congratulations for purchasing a VOSWINKEL GmbH product.

You have chosen a product with high-quality technical standards of the product group QUICKVOS multi-couplings.

The QUICKVOS multi-coupling manual must be read carefully and the presented guidelines and specifications taken into account before usage.

Security-related warning notices are printed **boldly** in this manual.

**The components of the multi-coupling system operate with high internal pressure. Due to this fact incorrect maintenance as well as extraneous usage can cause damage to people and/ or equipment as well as defective functionality.**

**That is why meeting the terms and conditions of this manual as well as regular maintenance are crucial and obligatory. Defective and worn out parts must be replaced.**

## 2. Technological description

The QUICKVOS multi-coupling is equipped with a locking system which enables you to couple all the elements safely by hand force at your first try.

Often, the multi-coupling systems are constructed to enable operating under residual pressure (UDK) on the side of the mobile part. Which coupling-elements of your mobile part are designed to operate under such conditions can be determined in the technical specifications of the multi-coupling-system you are deploying.

The mobile part can be coupled with UDK coupling-elements under residual pressure onto the fixed plate which needs to be depressurised when doing so.

## 3. Before assembly/ installation

**It must be verified that the operating pressure of the machinery the multi-coupler is attached to does not exceed the operating system of the QUICKVOS multi-coupler.**

**Operating pressures must be reconciled for each coupling-element individually as well as for the whole system.**

Before the QUICKVOS multi-coupler is made use of, all of its properties must be examined and reviewed.

## 4. Installation of the fixed plate

The QUICKVOS multi-coupler must be installed at an appropriate place in order to ensure correct and safe handling.

**The lever of the fixed plate must be floating. Distances between the elements must be sufficiently great, to prevent the person operating the system from getting caught while coupling, respectively decoupling.**

**In order to be capable of identifying a defective connection, the red release button must be clearly visible as well as easily accessible.**

The hole pattern of the fixed plate must be transferred onto the carrier plate for assembly. (The specific pattern of your QUICKVOS coupling system can be ascertained from its technical specifications)

For assembly cylinder head screws according to DIN 912 must be used. Determine the length of the screws accordingly to the available installation space.

Use threaded nuts for wall-mounted installation.

## 5. Installing hydraulic hose lines

The assembly as well as the disassembly of the hydraulic hose lines must be conducted according to DIN 20066.

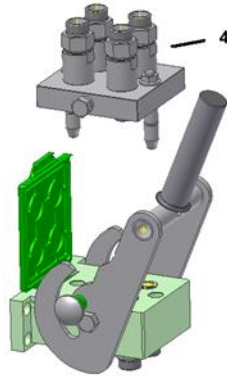
**Generate a counterthrust with a second wrench, thus securing the coupling elements when screwing on hose lines onto both halves of your QUICKVOS multi-coupler.**

## 6. Operating instructions

### 6.1 Uniting both halves

Open the dust protection and remove possible dirt from the surface.

Push down the unlocking device and move the lever to the top.

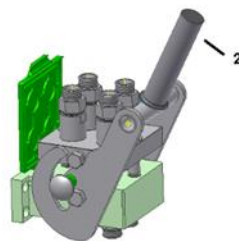


After moving the lever (2) to the top into the coupling position put the mobile part (4) with its guide pins into position with the according pilot drilling. By operating the lever (2) you ensure the connection between both halves.

**You must not use any kinds of extension, aids or tools in any kind of way when coupling or decoupling. Doing so will cause damage to the interior mechanisms.**

**It is only allowed to engage the multi-coupling system by manual force.**

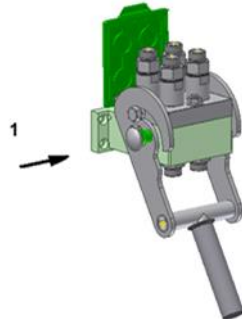
**Watch out to not reach into the gap between the two halves. Only operate the system via the lever. Otherwise there will be a serious risk of injury.**



Push down the lever (2) to its end until mobile and fixed half are brought together.

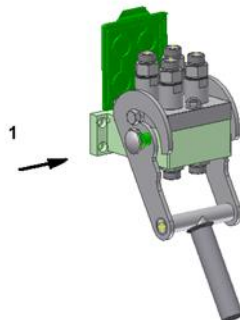
The locking mechanism (1) must click into place. The unlocking mechanism is safely locked when the spring loading has slid out.

The hydraulic system may only be pressurised when the safety mechanism has interlocked properly.



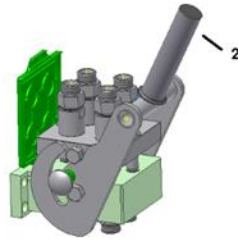
## 6.2 Decoupling process

Decoupling the QUICKVOS multi-coupling system must not be performed with an under pressure active hydraulic system. Doing so will cause damage to seals, technical resources and physical injuries.



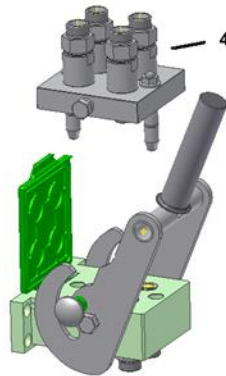
Push the unlocking device (1).

Hold on to the lever while doing so otherwise there will be a risk of recoil.



Turn the lever (2) until it reaches the starting point of the guide rail.

**The lever must be guided by hand when disengaging the system. Doing so will prevent the risk of recoil, which could cause harm to people or other objects.**



Remove the mobile part (4) from the fixed plate and store it in a suitable storage device which should be able to protect it from possible dirt and damage.

Close the dust protection and return the lever back into its initial position.

### 6.3. Maintenance

Fixed and mobile half must be cleaned thoroughly before every coupling process to ensure a long durability of the gaskets as well as the movable components.

Every mobile part must be cleaned and lubricated thoroughly.

The whole QUICKVOS multi-coupling system must be inspected periodically on regular bases. Damaged or leaking components must be replaced with original spare parts from VOSWINKEL.

## 7. Problem elimination

### 7.1 Leakage at the male body

Ascertain the leakage at the defected part.

If the problem occurs in the area of the valve the sealing must be replaced. Replace the affected seal with special purpose tools without causing any damage.

If the leakage occurs within a different area, the corresponding (coupling) part must be exchanged.

**! CAUTION !**

**Assembly must be conducted with the predefined torque.**

### 7.2 Leakage at the female body

Ascertain the leakage at the defected part.

The coupling element must be dismantled from the fixed plate and subsequently exchanged by an intact and properly working spare part.

**! CAUTION !**

**Assembly must be conducted with the predefined torque.**

### 7.3 Leakage in a coupled state

Examine the connected hose line as well as its connectors for leakage.

The present system pressure must be relieved. Inspection and elimination of the occurring problem as described in 7.1 and 7.2.

Defected parts must be substituted accordingly to the spare parts list. Each unit must be replaced as described in the spare parts specifications, chapter 8.4.

### 7.4 Multi-coupling system cannot be coupled

If the multi-coupling system is not operable by manual force:

- Check locking mechanisms, guide tracks fastening and coupling elements for damage
- Remove any kind of debris, dirt, foreign bodies, matter, particles

If the hydraulic pressure exceeds the ability to couple the multi-coupling by hand residual pressure within the system must be relieved.



Affected parts and components must be exchanged according to the spare parts specifications.

## 7.5 Multi-coupling cannot be unlocked/ released

If the multi-coupling cannot be unlocked by manual force:

- Check locking mechanisms, guide tracks fastening and coupling elements for damage
- Release residual pressure

Affected parts and components must be exchanged according to the spare parts specifications.

## 7.6 Leakage at connecting threads

If a leakage is determined at the connection threads these must be fastened with the appropriate corresponding tools.

If the leakage remains the hose line connections must be examined and preceded accordingly to chapter 7.1 and 7.2.

## 8. Replacement of the components

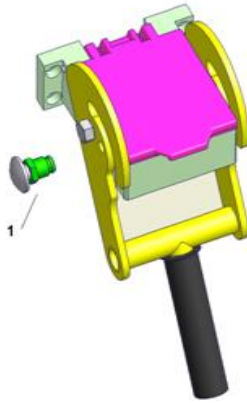
### 8.1 Safety unlocking device

Remove the damaged safety locking device (1) with a wrench from the system. Replace it with a new, spare parts kit.

While fastening use a 10 Nm torque.

The lever must be exchanged immediately in case of the thread being damaged.

If not, the safety of handling cannot be guaranteed anymore.



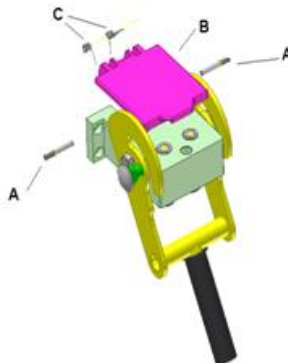
## 8.2 Dust protection

For replacing the dust protection please removes carefully the bearing pins (A).

The springs must be secured when disassembling/ assembling.

Position the dust protection onto the according contour of the fixed plate. The springs must be placed with the right position into their corresponding recess.

The bearing pins must be fitted so that the knurling grips the thread of the fixed plate.

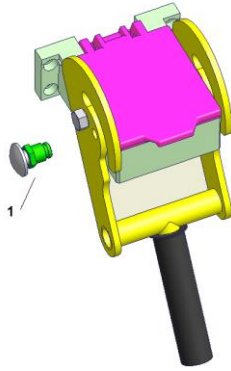


## 8.3 Lever

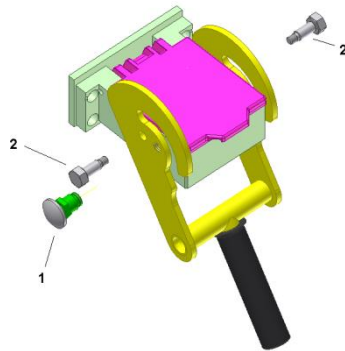
Before disassembling the lever the safety unlocking device (1) must be removed.

**! CAUTION !**

**Disassembly may only be carried out when the whole system is depressurised.**



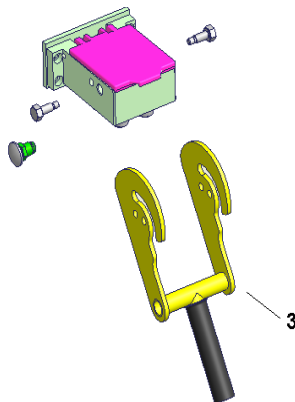
Dismantle the fitting screws (2).  
The lever (3) can now be removed from the fixed plate.



In case of the locking pin latching into the thread of the unlocking mechanism it must be pushed into the direction of the fixed plate with a suitable tool. The lever can now be removed.

Afterwards, assembly can be carried out. Position the new lever and tighten the screws with a torque of 35 Nm.

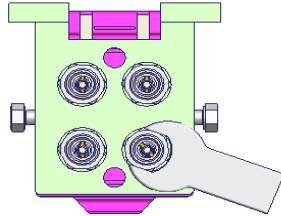
Put the unlocking button back into place afterwards as described in chapter 8.1.



## 8.4 Replacement of coupling elements

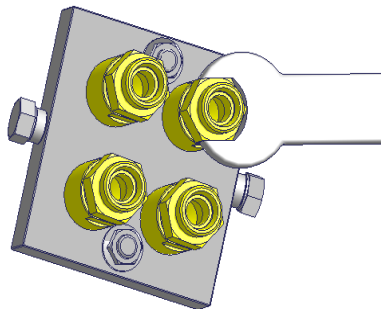
Fixed plate:

Installation of **female coupling** elements with the **sizes 6,3/ 10/ 12** must be conducted with a torque of **40 Nm**, female bodies with the **size 19** must be fastened with a torque of **90 Nm**.



Mobile part:

Installation of **male coupling** elements must be conducted with a **torque of 40 Nm**.



## 8.5 Seals within the male coupling elements (mobile part)

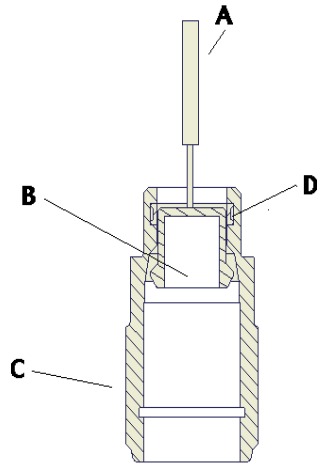
Disassembly:

Tool A pushes down the tappet head (B) into the direction of the male body (C) until (the point where) the gasket is released.

Remove the defective sealing from the groove with tool E.

**! Caution !**

**Do not use sharp-edged or pointed tools when pushing down the tappet. Make sure to use a tool with a flat tip. (Tool A)**



Assembly:

Place the new sealing onto the tappet head.

The tappet head must now be pushed down again by means of Tool A.

The sealing is placed into the groove tiltedly and must be positioned with tool E.

**Watch out to not cause any damage to the new sealing while doing so.**

