

## Assembly instructions VOSS quick connect system 241 Part 1: Applications in fuel systems

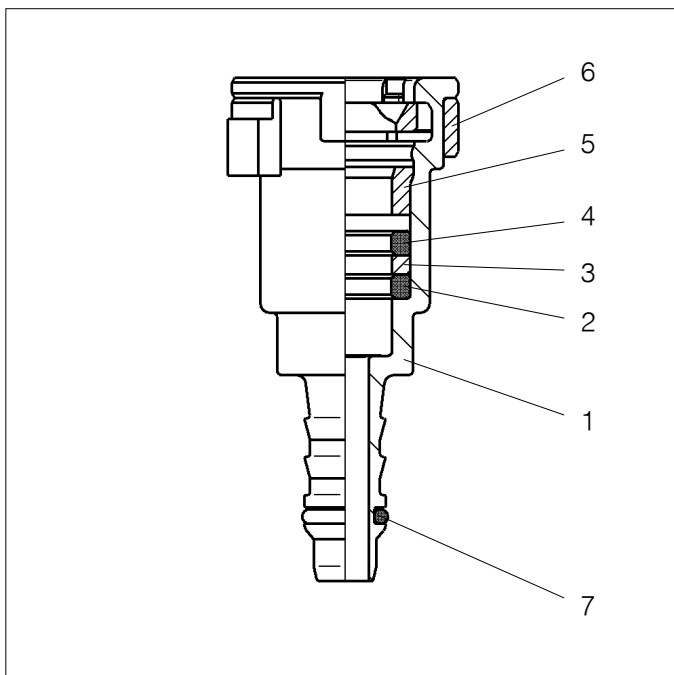


Fig. 1: Single components of the straight coupling  
VOSS quick connect system 241

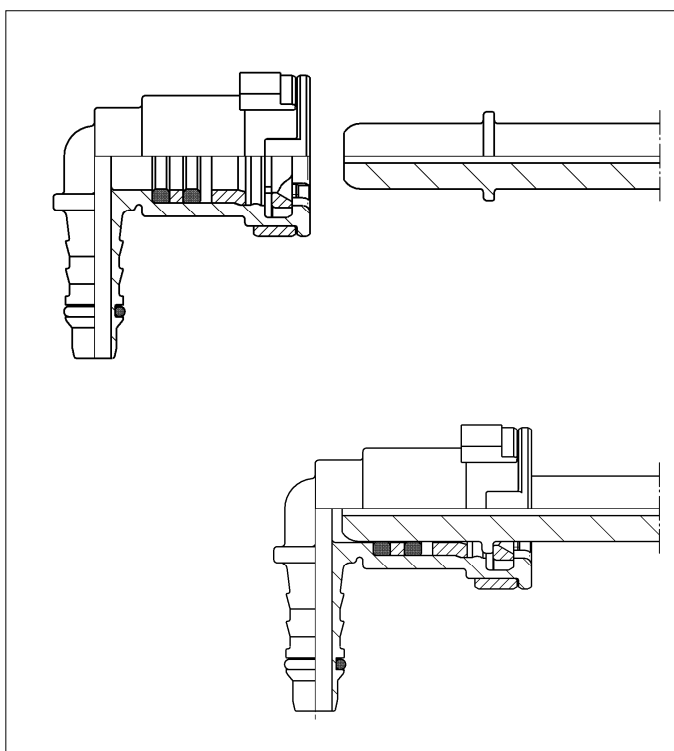


Fig. 2: Elbow coupling and male connector,  
before assembly (top) and in use (bottom)

These assembly instructions are intended for qualified workers of fuel systems in automotive engineering.

### 1. Range of application

The VOSS quick connect system 241 is designed for diesel fuel and gasoline applications.

System design, temperature range and operating pressures meet SAE J2044 (Rev. Sep 2002).

### 2. Single components

VOSS quick connect system 241 (see fig. 1) is consisting of:

- 1 Coupling
- 2 O-ring
- 3 Washer
- 4 O-ring
- 5 End sleeve
- 6 Holding clip
- 7 O-ring (optional)

The coupling is designed for the assembly of nylon tubes and hoses.

The design specification of the SAE male connector can be provided if required.

### 3. Functional description

The connection of VOSS quick connect system 241 is made by pushing the coupling onto the male connector.

The holding clip of the coupling engages behind the bead of the SAE connector (fig. 2).

The connection is completely locked by pulling back the coupling.

## Assembly instructions VOSS quick connect system 241 Part 1: Applications in fuel systems

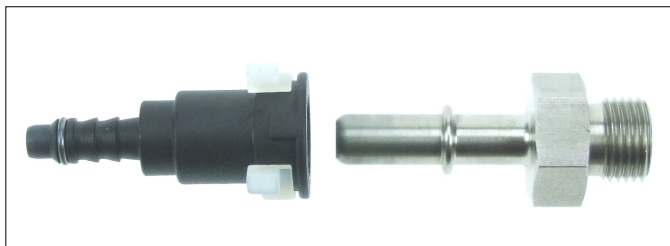


Fig. 3: Coupling and male connection before assembly



Fig. 5: Pushing the coupling as far as it will go onto the male connector



Fig. 6: Pulling back the coupling to the locked position



Fig. 7: Pushing the coupling out of the locked position for disconnecting

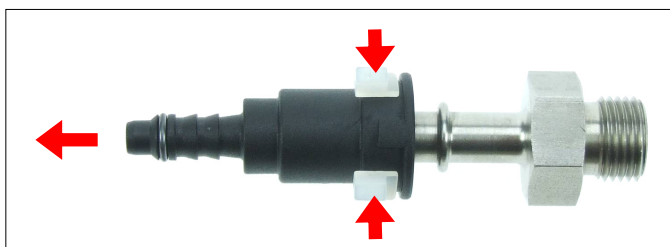


Fig. 8: Compressing the lugs of the holding clip and pulling the coupling off

### 4. Assembly instructions

#### 4.1. Assembly

Before assembly the components have to be checked. They must be clean and should not show any signs of damage.

During the assembly process the holding clip has to be in a centered position (fig. 4).

The coupling is pushed onto the male connector to the limit stop. The holding clip of the coupling engages behind the bead of the male connector.

By pulling back the coupling manually against the pushing direction, the holding clip reaches the locking position. In this position the system cannot be opened.

#### 4.2. Disassembly

Before disconnecting the line must be free of pressure and the area of the holding clip free from dirt.

Moving the coupling in the initial pushing direction causes the holding clip to leave the locked position. The lugs of the holding clip can be compressed and the coupling can be pulled off the male connector.

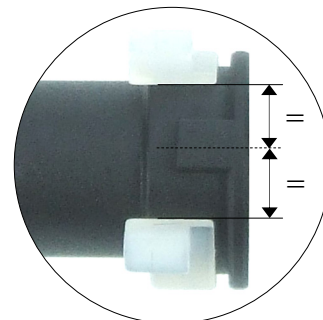


Fig. 4: Holding clip in centered position

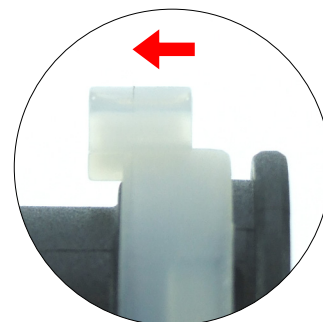


Fig. 9: System not locked (see also figs. 5 and 7)

Pull the coupling back in the indicated direction for locking the system.

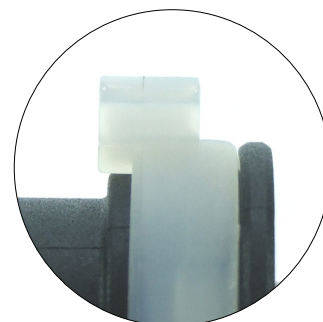


Fig. 10: System locked (see also fig. 6)

## Assembly instructions VOSS quick connect system 241 Part 2: Applications in electrically heated SCR systems

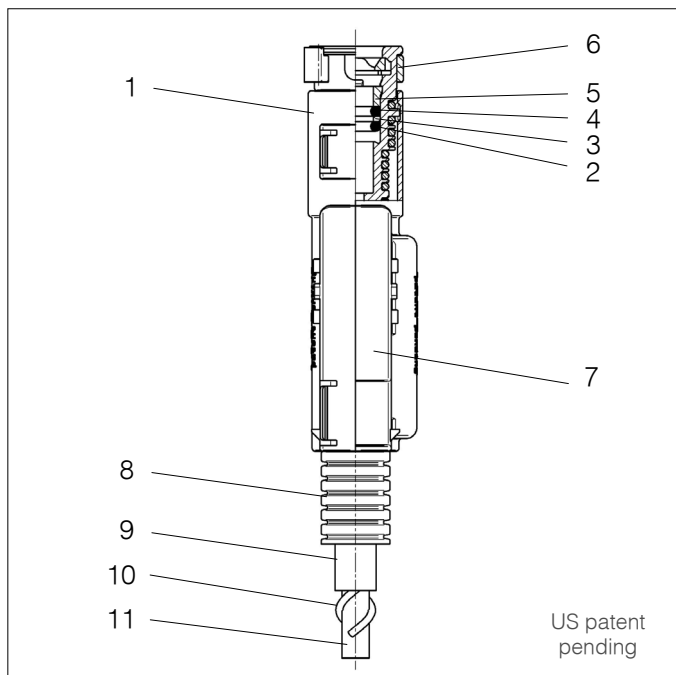


Fig. 1: Single components of the straight coupling VOSS quick connect system 241 for electrically heated SCR systems

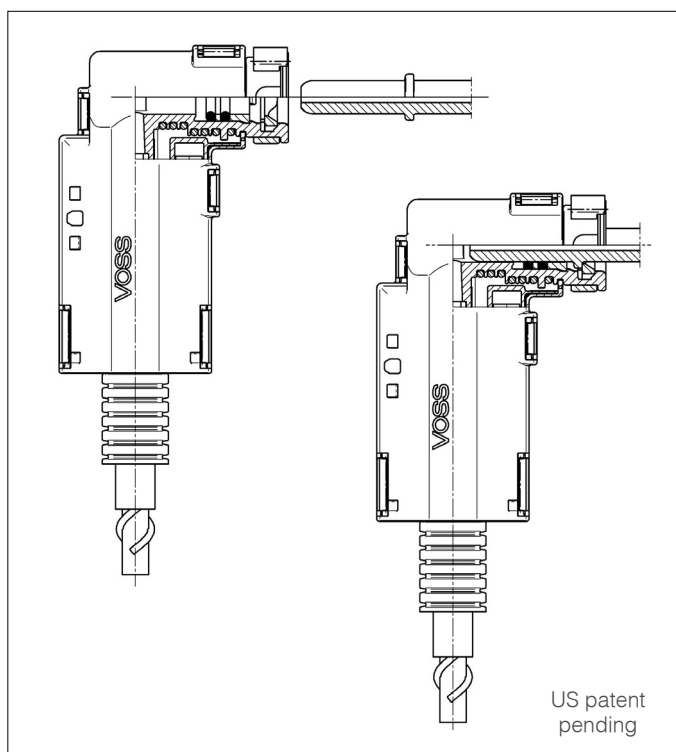


Fig. 2: Elbow coupling and male connector, before assembly (left) and in use (right)

These assembly instructions are intended for qualified workers of SCR systems in automotive engineering.

### 1. Range of application

The VOSS quick connect system 241 is designed especially for urea solutions in electrically heated SCR systems.

System design, temperature range and operating pressures meet SAE J2044 (Rev. Sep 2002).

### 2. Single components

VOSS quick connect system 241 (see fig. 1) is consisting of:

- 1 Coupling
- 2 O-ring
- 3 Washer
- 4 O-ring
- 5 End sleeve
- 6 Holding clip
- 7 Housing
- 8 Corrugated tube
- 9 Insulation
- 10 Heating wire
- 11 Nylon tube

The coupling is designed optionally for the assembly or laser welding of nylon tubes.

The design specification of the SAE male connector can be provided if required.

### 3. Functional description

The connection of VOSS quick connect system 241 is made by pushing the coupling onto the male connector.

The holding clip of the coupling engages behind the bead of the SAE connector (fig. 2).

The connection is completely locked by pulling back the coupling.

## Assembly instructions VOSS quick connect system 241 Part 2: Applications in electrically heated SCR systems

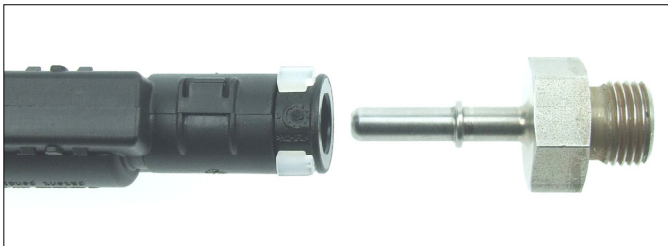


Fig. 3: Coupling and male connection before assembly

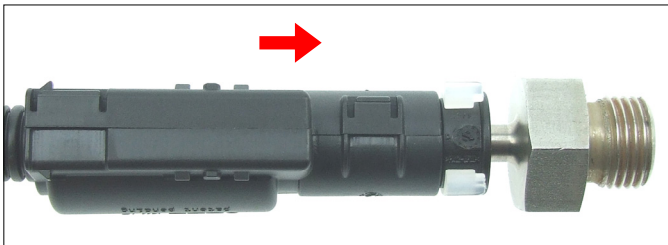


Fig. 5: Pushing the coupling as far as it will go onto the male connector; in the process the holding clip engages

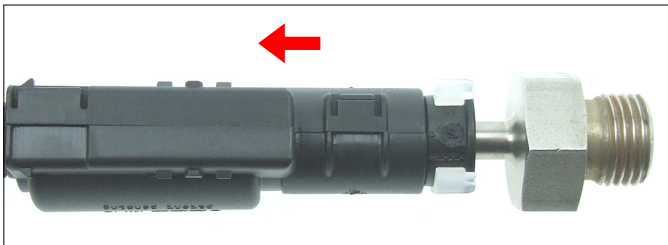


Fig. 6: Pulling back the coupling to the locked position

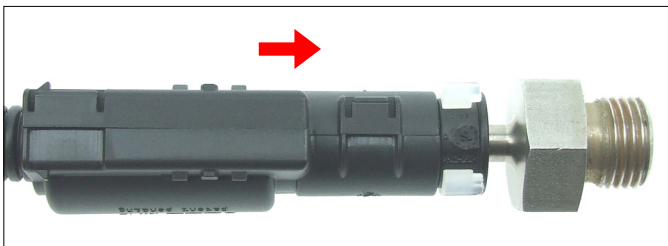


Fig. 7: Pushing the coupling out of the locked position for disconnecting

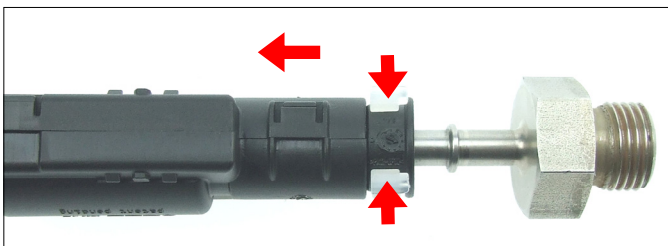


Fig. 8: Compressing the lugs of the holding clip and pulling the coupling off

### 4. Assembly instructions

#### 4.1. Assembly

Before assembly the components have to be checked. They must be clean and should not show any signs of damage.

During the assembly process the holding clip has to be in a centered position (fig. 4).

The coupling is pushed onto the male connector to the limit stop. The holding clip of the coupling engages behind the bead of the male connector.

By pulling back the coupling manually against the pushing direction, the holding clip reaches the locking position. In this position the system cannot be opened.

#### 4.2. Disassembly

Before disconnecting the line must be free of pressure and the area of the holding clip free from dirt.

Moving the coupling in the initial pushing direction causes the holding clip to leave the locked position. The lugs of the holding clip can be compressed and the coupling can be pulled off the male connector.

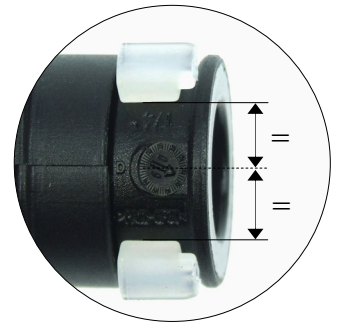


Fig. 4: Holding clip in centered position

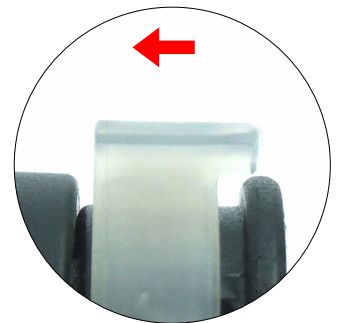


Fig. 9: System not locked (see also figs. 5 and 7); pull the coupling back in the indicated direction for locking the system.



Fig. 10: System locked (see also fig. 6)

## Assembly instructions VOSS quick connect system 241 Part 3: Applications in SCR systems

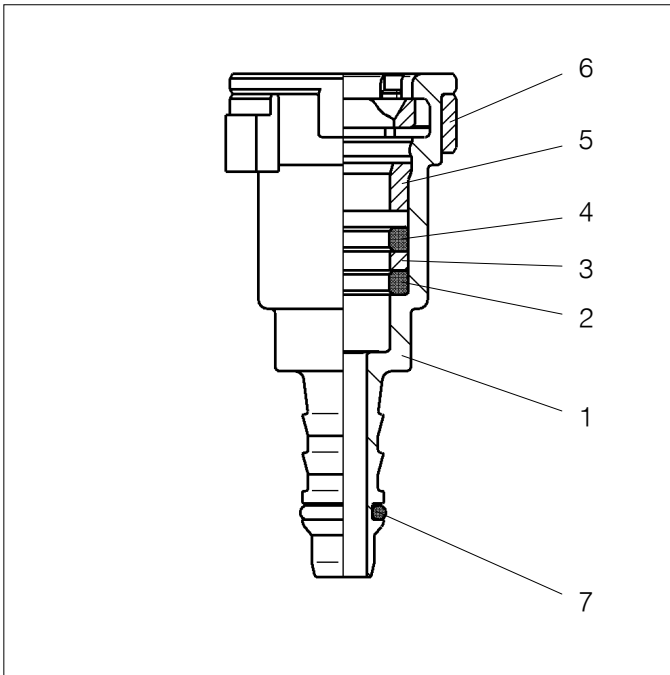


Fig. 1: Single components of the straight coupling VOSS quick connect system 241

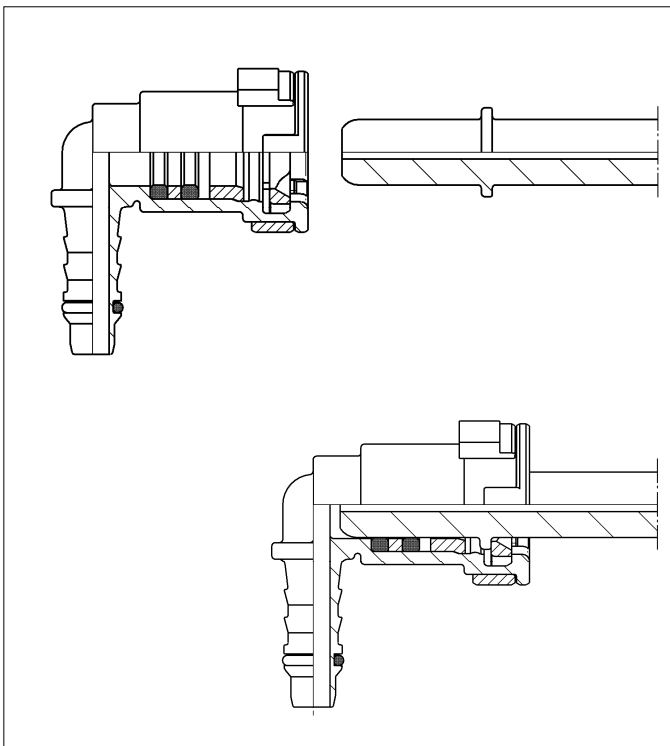


Fig. 2: Elbow coupling and male connector, before assembly (top) and in use (bottom)

These assembly instructions are intended for qualified workers of SCR systems in automotive engineering.

### 1. Range of application

The VOSS quick connect system 241 is designed for urea solutions in SCR systems.

System design, temperature range and operating pressures meet SAE J2044 (Rev. Sep 2002).

### 2. Single components

VOSS quick connect system 241 (see fig. 1) is consisting of:

- 1 Coupling
- 2 O-ring
- 3 Washer
- 4 O-ring
- 5 End sleeve
- 6 Holding clip
- 7 O-ring (optional)

The coupling is designed for the assembly of nylon tubes and hoses.

The design specification of the SAE male connector can be provided if required.

### 3. Functional description

The connection of VOSS quick connect system 241 is made by pushing the coupling onto the male connector.

The holding clip of the coupling engages behind the bead of the SAE connector (fig. 2).

The connection is completely locked by pulling back the coupling.

## Assembly instructions VOSS quick connect system 241 Part 3: Applications in SCR systems

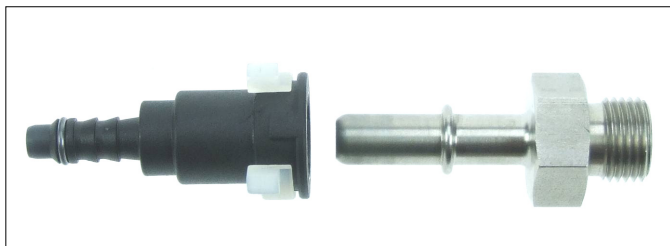


Fig. 3: Coupling and male connection before assembly



Fig. 5: Pushing the coupling as far as it will go onto the male connector



Fig. 6: Pulling back the coupling to the locked position



Fig. 7: Pushing the coupling out of the locked position for disconnecting

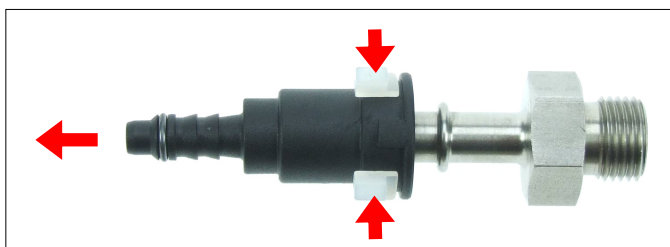


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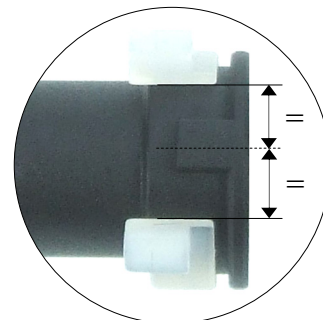


Fig. 4: Holding clip in centered position

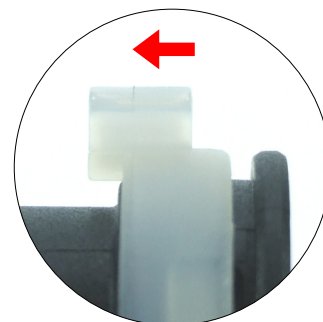


Fig. 9: System not locked (see also figs. 5 and 7)

Pull the coupling back in the indicated direction for locking the system.

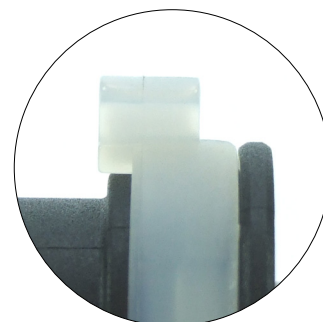


Fig. 10: System locked (see also fig. 6)