

**TECHNICAL CHARACTERISTICS**

Fork with Ø30 mm air-damped legs with hydraulic rebound damping.

Adjustment of the hydraulic rebound braking through the adjuster in the right leg.

Adjustment of the air preload on both legs.

The stanchion tubes are pressed into the crown with a cryogenic process.

New sliding system to improve the stiffness and operation.

Magnesium alloy cast one-piece assembly, CNC machined for lighter weight and more stiffness.

Components subjected to friction are lubricated and cooled by means of a special oil.

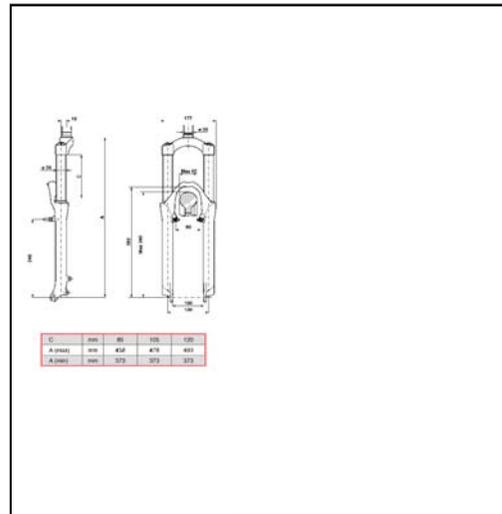
**Steer tube:** steel or (optional) aluminium, 1-1/8", threadless.

**Crown:** BAM® aluminium alloy forged and CNC machined.

**Stanchions:** anodised aluminium.

**Sliding bushes:** made of friction free and wear free material.

**Seals:** computer designed oil seals that



guarantee the maximum seal in any condition.

**Oil:** special formulated oil that prevents foam and keeps the viscosity unchanged while offering high performance; free from static friction.

**Dropout type:** Standard.

**Disk brake mount:** XC International Standard for 6" disk.

**V-Brake fit.**

**BAM®: Bomber Aerospace Material: special alloy coming from the aerospace industry.**

Rider's weight		Positive air pressure	
lbs	kg	kg	kg
120 ÷ 155	55 ÷ 70	30 ÷ 40	2.00 ÷ 2.75
155 ÷ 180	70 ÷ 80	35 ÷ 45	2.40 ÷ 3.10
180 ÷ 210	80 ÷ 95	42 ÷ 52	2.90 ÷ 3.80
210 ÷ 220+	95 ÷ 100+	52 ÷ 65	3.60 ÷ 4.50

MX Comp Aria - 105	125	125
MX Comp Aria - 120	130	125
MX Comp Aria - 85	125	125
<b>MARZOCCHI cod 55 00 09 SAE 7,5</b>		

Component to be tightened	Tightening Torque (Nm)
Fork leg top caps	20 ± 1
Pumping element locking bottom nuts	11 ± 1
V-brake pins	11 ± 1



***INSTRUCTIONS FOR USE***



***GENERAL REGULATIONS***



***FITTING THE FORK ONTO THE FRAME***



***INSTALLING THE DISK BRAKE SYSTEM***



***INSTALLING THE V-BRAKE SYSTEM***



***ASSEMBLING THE WHEEL ON FORKS WITH STANDARD DROPOUTS***

## **INSTRUCTIONS FOR USE**

MARZOCCHI forks are based on an advanced technology coming from the company's years long experience in the professional mountain bike industry.

For the best results, it is advisable to inspect and clean the area below the dust seal and the stanchion tube after every use and to lubricate the parts with some silicone oil.

MARZOCCHI forks usually offer the best performances since the very first rides. Notwithstanding this, a short running-in period may be necessary (5-10 hours) to adjust the internal couplings. This precaution will lengthen your fork's life and guarantee its best performances.

**Changing the oil every 100 hours is recommended.**

The forks with a polished finish must be treated periodically with polishing paste to keep the exterior shining like new.

**GENERAL REGULATIONS**

- After a complete breakdown, always use new MARZOCCHI seals when reassembling.
- Before reassembly, wash all new and old components and dry them with some compressed air, making sure there are neither breaks nor burrs.
- Never use flammable or corrosive solvents to clean the parts as this could damage the seals. If necessary use specific detergents that are not corrosive, not flammable or have a high flash point compatible with the materials of the seals and preferably biodegradable.
- Before reassembling, always lubricate the parts of the fork in contact with some oil for forks.
- Never pour lubricants, solvents or detergents which are not completely biodegradable in the environment; these must be collected and kept in the relevant special containers, then disposed of in accordance with the regulations in force.
- Always grease the seal lips before reassembling.
- Use only metric spanners and not imperial. Imperial spanners may have similar sizes to metric ones but they can

damage the bolts and screws making it impossible to unscrew them.

- Use the right size and sort of screwdriver to unscrew slotted or crosshead screws.
- When using a screwdriver to assemble or dismantle metal stop rings, O-ring seals, guide bushes or seal segments, avoid scratching or cutting the components with the tip of the screwdriver.
- Use only original spare parts.
- Before servicing the fork, we recommend washing the fork thoroughly.
- Work in a clean, ordered and well-lit place.
- Carefully check there are no metal shavings in the work area.

## **FITTING THE FORK ONTO THE FRAME**

The fork is supplied with “A-Head Set” steer tube to be cut according to frame size it will be used on.

Fitting the fork onto the bike frame is a very delicate operation that must be carried out at one of our service centres only.

The assembling on the frame and the adjustment of the steer tube must be carried out following the instructions of the steering set manufacturer.

**A wrong installation can be dangerous for the rider.**

**Marzocchi does not guarantee the assembly and accepts no liability for damage and/or accidents arising from a wrong installation.**

**The steer tube must be pressed into the crown; its replacement must be carried out by one of our service centres using the adequate tools.**

**A wrong installation of the steer tube into the crown may cause the rider to lose the control of the bike and lead to serious personal injury.**

### **INSTALLING THE DISK BRAKE SYSTEM**

Installing the brake system is a very delicate operation that must be carried out at our specialised service centres only.

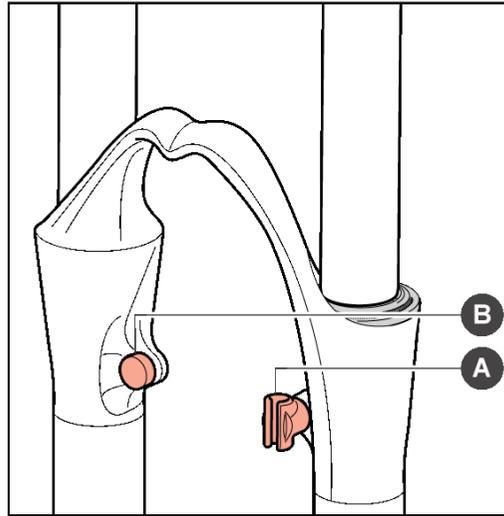
Marzocchi does not guarantee the installation and accepts no liability for damage and/or accidents arising from a wrong installation

**Improper installation of the disk brake system can overstress the caliper mountings, which may break. The installation of the brake system must be carried out following the instructions of the brake system manufacturer. Improper installation can be dangerous for the rider.**

Use only brake systems in accordance with the fork's specifications.

**If the fork comes standard with V-brake mounts, remove such mounts and install the cable guide (A) on the left side and cap (B) on the right side.**

**After installation always check that the brake tube is correctly fixed to the special mount (A).**



## INSTALLING THE V-BRAKE SYSTEM

Installing the brake system is a very delicate operation that must be carried out at our specialised service centres only.

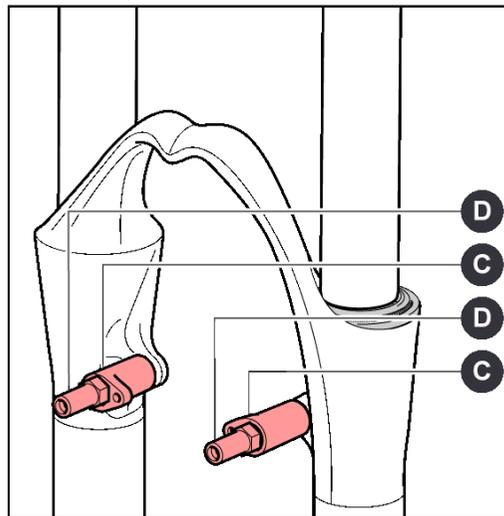
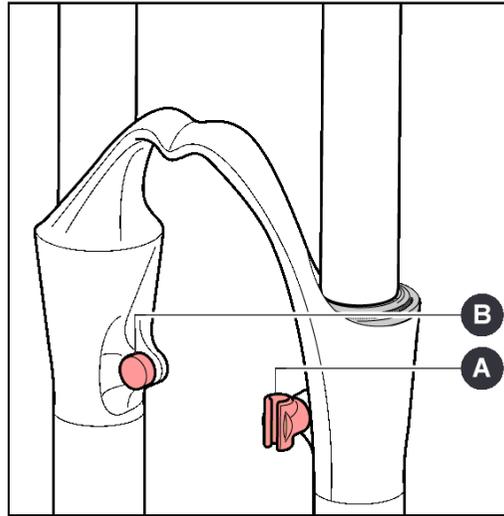
Marzocchi does not guarantee the installation and accepts no liability for damage and/or accidents arising from a wrong installation.

**The installation of the brake system must be carried out following the instructions of the brake system manufacturer. Improper installation can be dangerous for the rider.**

Use only brake systems in accordance with the fork's specifications.

**If the fork does not come standard with V-brake mounts, after removing the cable guide (A) and the disk brake mount cap (B), install the adapter (A) and the bolt (D) on both legs, check that the adapter is correctly oriented as shown and tighten the bolt to the recommended tightening torque ( $11 \pm 1$  Nm).**

**On the thread of bolts (D) a special anti-unscrewing treatment has been applied; as a result, the removed bolts cannot be re-used as they lose such treatment.**



**ASSEMBLING THE WHEEL ON FORKS  
WITH STANDARD DROPOUTS**

**Install the wheel following the  
instructions of the bike's manufacturer.**

A good and reliable operation of the fork  
and all of the parts linked to it mainly  
depend on the correct fixing of the front  
wheel.

For a correct operation of the fork, install  
the wheel as explained below:

Check the correct fork-wheel alignment by  
fully compressing the fork a few times.

Lift the front wheel above the ground; turn  
the wheel a few times to verify the correct  
alignment with the disk brake.





**REMOVING THE TOP CAPS**



**DRAINING THE OIL**



**BREAKING DOWN THE CROWN-STANCHION UNIT / ARCH-SLIDER ASSEMBLY**



**BREAKING DOWN PUMPING ELEMENT AND VALVE – RIGHT LEG**



**BREAKING DOWN PUMPING ELEMENT AND VALVE - LEFT LEG**



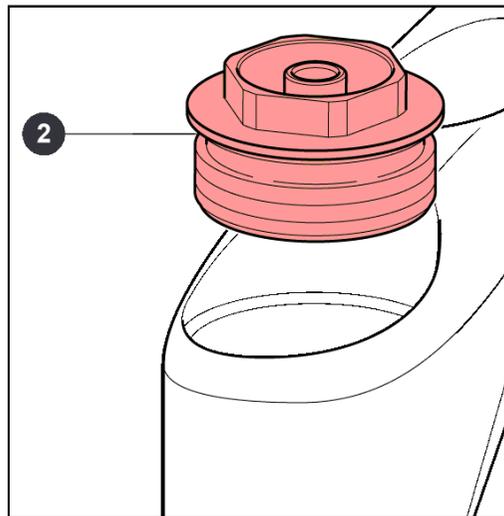
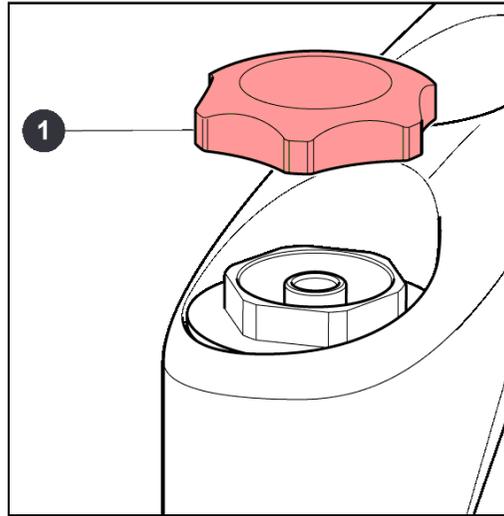
**REMOVING THE SEALS**



**REMOVING THE GUIDE BUSHES**

**REMOVING THE TOP CAPS**

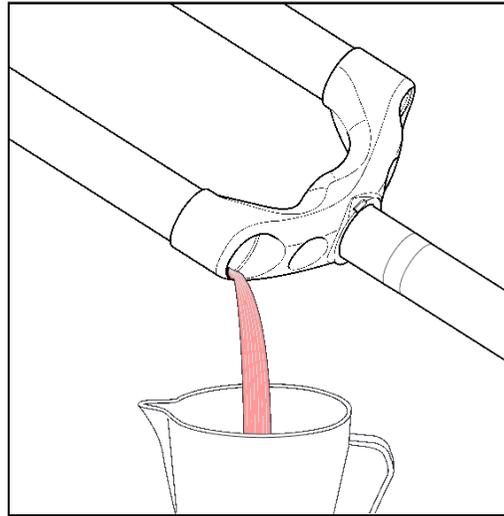
- Put the fork in the vice in a vertical position, fixing it by the dropouts.
- Remove the protection cap (1).
- Using a small pin screwdriver, blow the air off the fork leg pushing on the preload valve.
- Fully unscrew the lock cap (2), using a 21mm socket spanner.
- Remove the lock cap (2).



**DRAINING THE OIL**

· Free the fork from the vice and tip it into a container of a suitable size to drain the oil; compress the fork a few times to help the oil flow out.

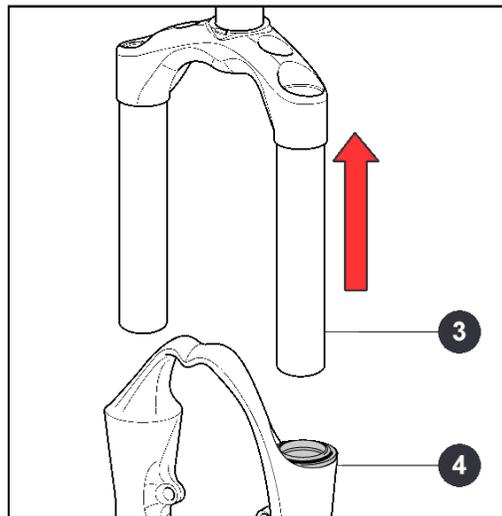
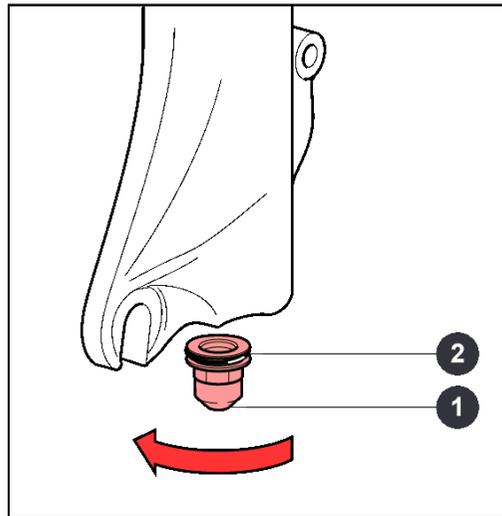
**Do not pour used oils on the ground.**



**BREAKING DOWN THE  
CROWN-STANCHION UNIT /  
ARCH-SLIDER ASSEMBLY**

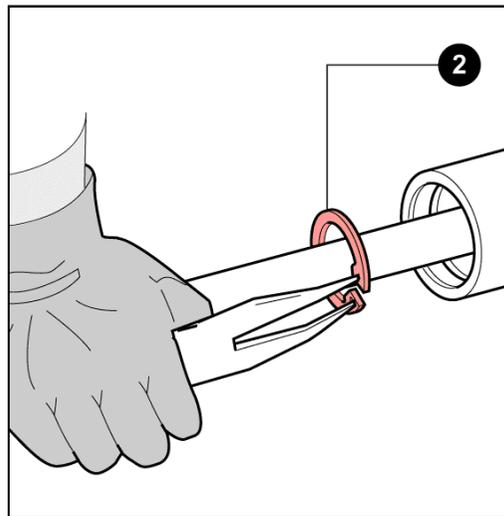
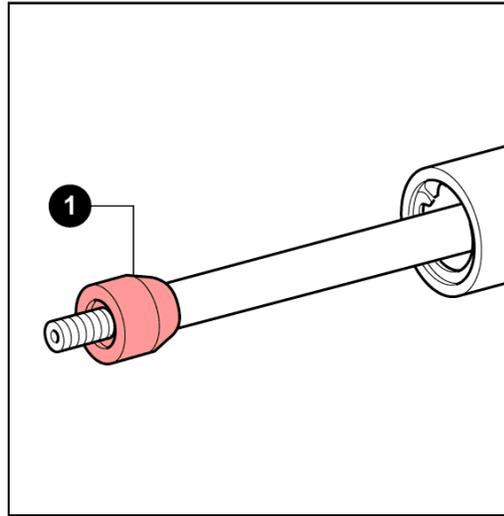
**Use the special spanner to remove the  
bottom nuts. Do not use other tools.**

- Turn the arch-slider assembly upside down.
- Using the special 12mm spanner (A), loosen the two bottom nuts (1).
- Remove the bottom nuts (1) and the O-rings (2).
- Pull the crown-stanchion unit (3) off the arch-slider assembly (4).

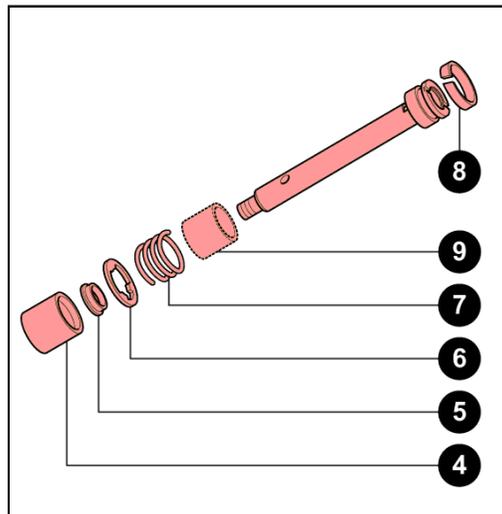
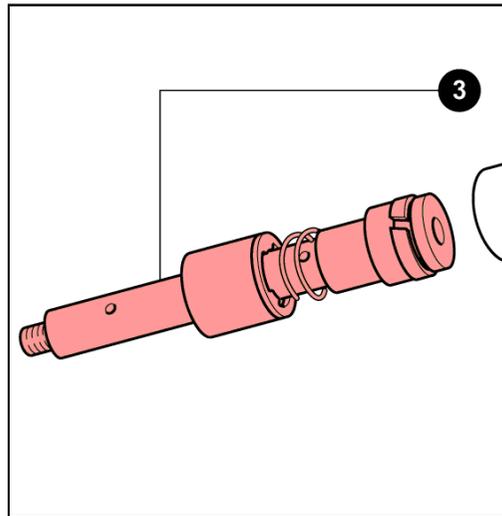


**BREAKING DOWN PUMPING ELEMENT  
AND VALVE – RIGHT LEG**

- Remove the bottom pad (1).
- Using the round-nose pliers remove the stop ring (2).

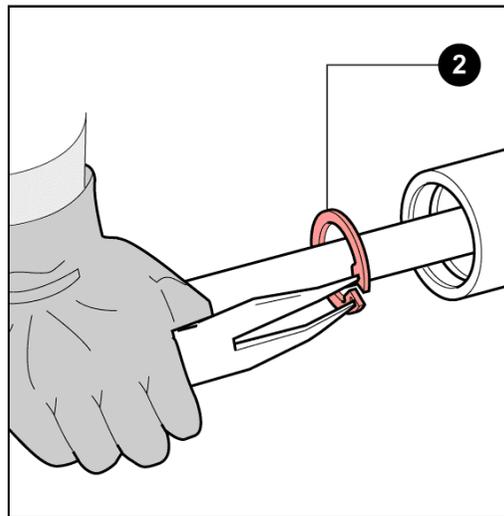
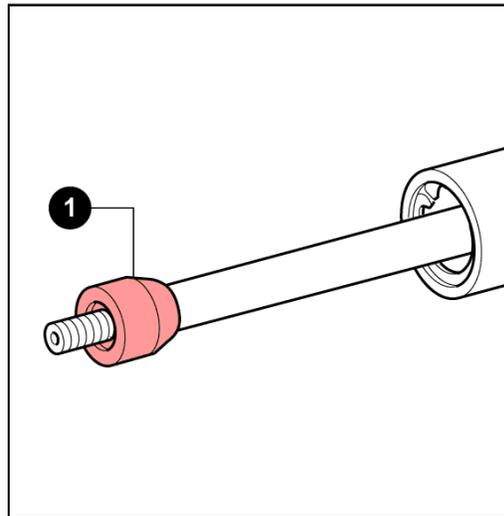


- Pull out the pumping element (3) complete with rebound spring and valve.
- Remove bushing (4), valve (5), three-point ring (6) and rebound spring (7) from the pumping element.
- Pull out the preload tube (9) (only for models with 105mm travel).
- If the piston segment (8) is damaged, prize it off with a small flat-tip screwdriver.

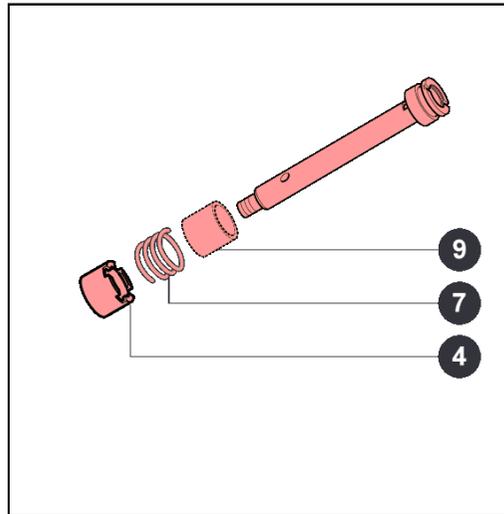
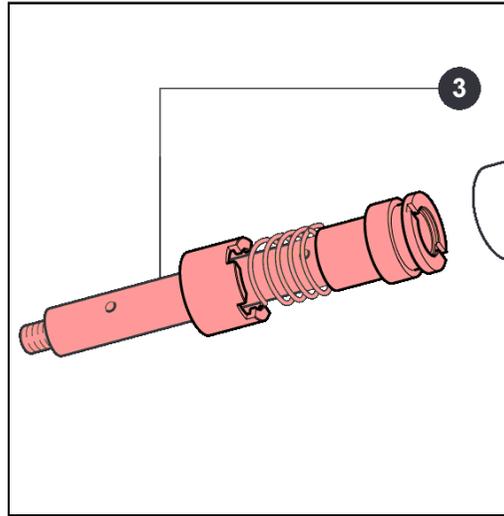


**BREAKING DOWN PUMPING ELEMENT  
AND VALVE - LEFT LEG**

- Remove the bottom pad (1).
- Using the round-nose pliers remove the stop ring (2).



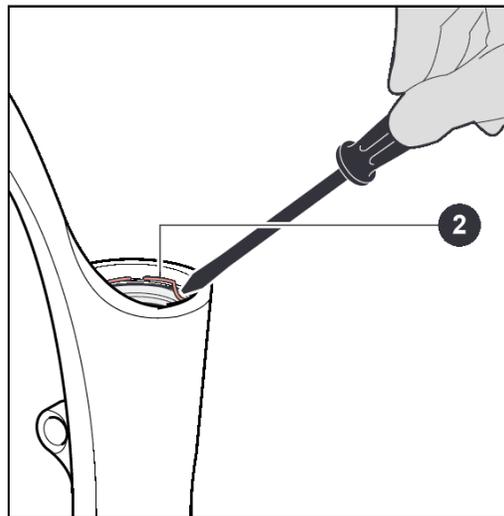
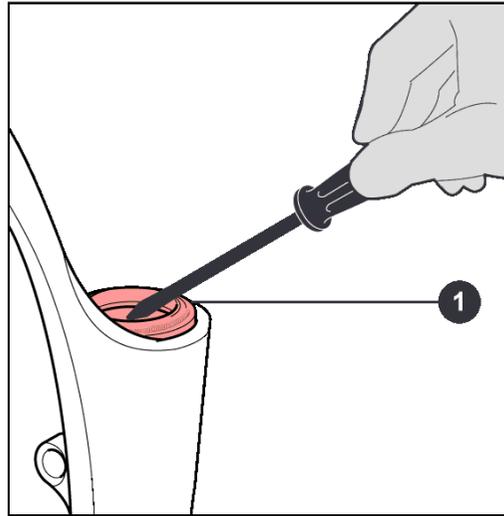
- Pull out the pumping element (3) complete with rebound spring and bushing.
- Remove bushing (4) and the rebound spring (7) from the pumping element.
- Pull out the preload tube (9) (only for models with 105mm travel).



### REMOVING THE SEALS

- Remove the dust seal (1) from its seat, using a small flat-tip screwdriver.
- With the same screwdriver prize off the metal stop ring (2).

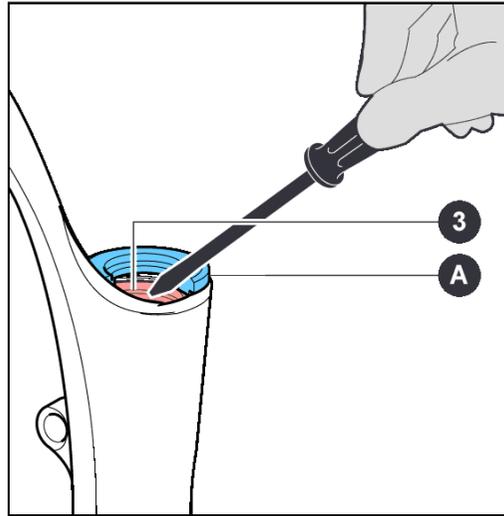
**Take great care not to damage the internal surfaces of the arch-slider assembly when removing the dust seal and the stop ring.**



Protect the upper part of the slider with the special tool (A).  
With a screwdriver prize the sealing ring (3) off.  
Remove the sealing ring (3).

**Take great care not to damage the internal surfaces of the arch-slider assembly when removing the sealing ring.**

**The old sealing rings and dust seals must not be used again.**



## REMOVING THE GUIDE BUSHES

**Use the special extractor to remove the guide bushes. Do not use other tools.**

Fit the aluminium bush (A) to the extractor keeping the small diameter side towards the edge opposite to the striker.

Fit the extraction washer (B) with a white finish to the extractor.

**During use, remove the non-used washer from the extractor.**

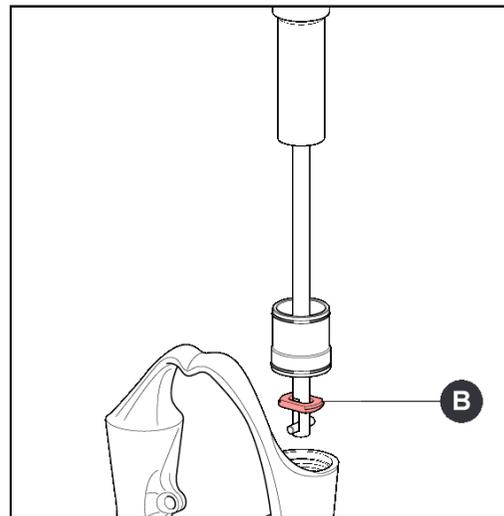
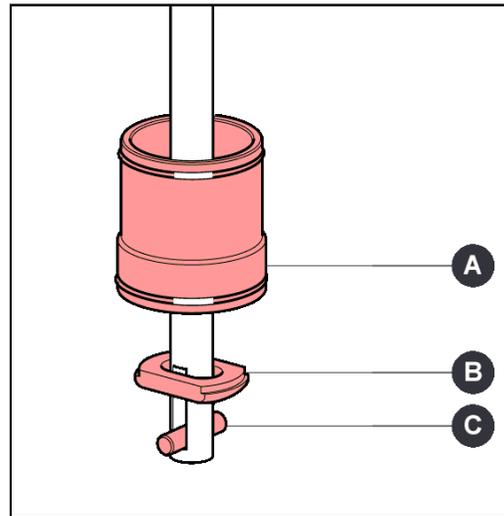
**Remove first the top bushes, then the bottom bushes.**

Fit the extraction washer keeping the blunt side towards the threaded grubscrew (C) fixed crosswise on to the main rod as shown.

The slot in the rod lets the extraction washer swing inside the rod itself.

Insert the extractor in the arch-slider assembly from the side of washer (B) as shown.

The slot in the extractor rod will let the washer pass underneath the bush to be extracted.



Pull the extractor rod so that the upper face of the washer stops against the lower face of the guide bush.

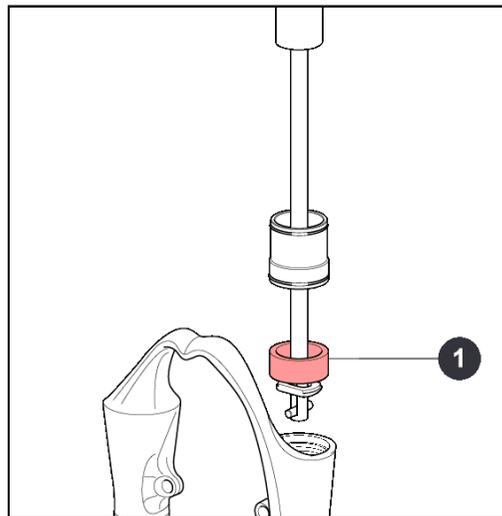
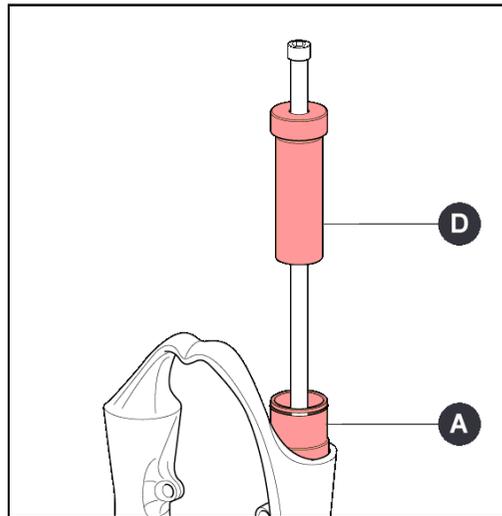
Insert the aluminium bush (A) in the seat of the sealing ring.

While holding the main rod in position, the aluminium bush drives the guide bushes during extraction.

With striker (D) knock out and extract the guide bush (1).

Remove the guide bush (1) from the extractor.

Repeat the steps above to remove the bottom guide bush.





**ASSEMBLING THE GUIDE BUSHES**

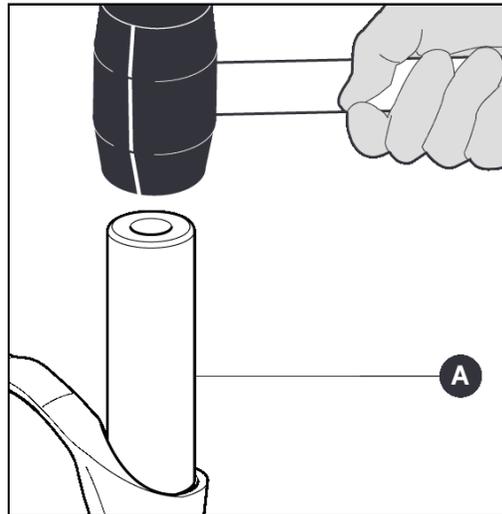
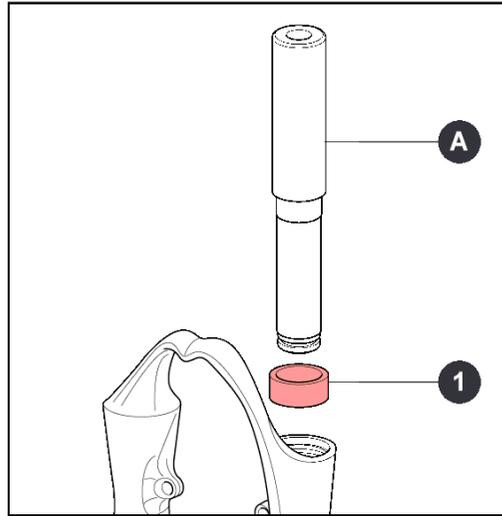
**ASSEMBLING THE GUIDE BUSHES**

Insert the guide bushes using the special introducers (short type for the top bush and long type for the bottom bush, both with a black finish). Do not use other tools.

Fit first the bottom bushes, then the top bushes.

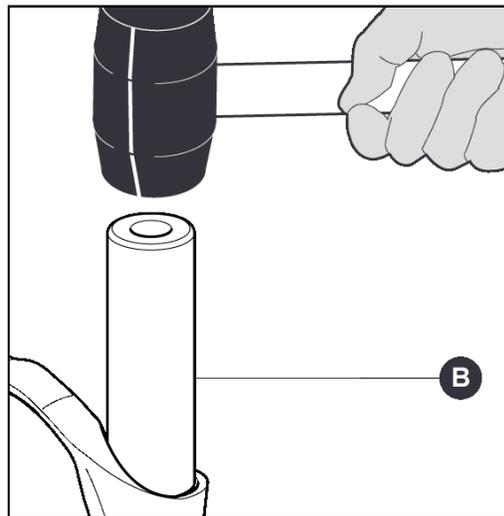
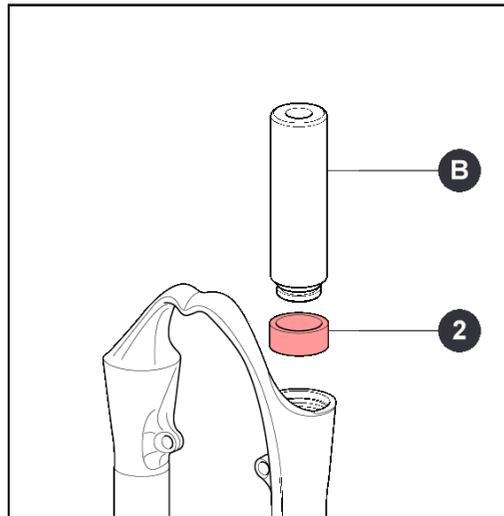
Using the long introducer (A) fit the bottom bush (1).

Using a hammer knock the introducer (A) into the arch-slider assembly.



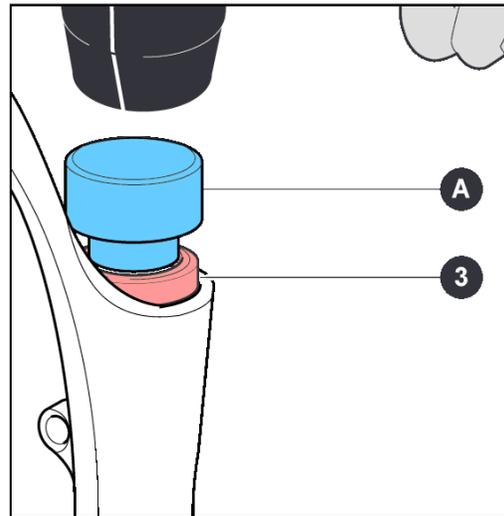
Using the short introducer (**B**) fit the bottom bush (**2**).

Using a hammer knock the introducer (**B**) into the arch-slider assembly.



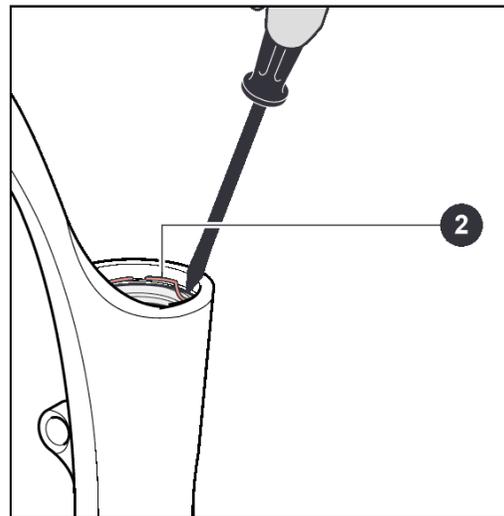
**ASSEMBLING THE SEALS**

- Smear the dust seal and the sealing ring with some grease.
- Refit the sealing ring (3) using the special introducer (A).
- Using a hammer knock in the introducer (A) and drive the sealing ring home into the arch-slider assembly.
- With a small tip screwdriver mount the stop ring (2) and check it fits perfectly into its groove.



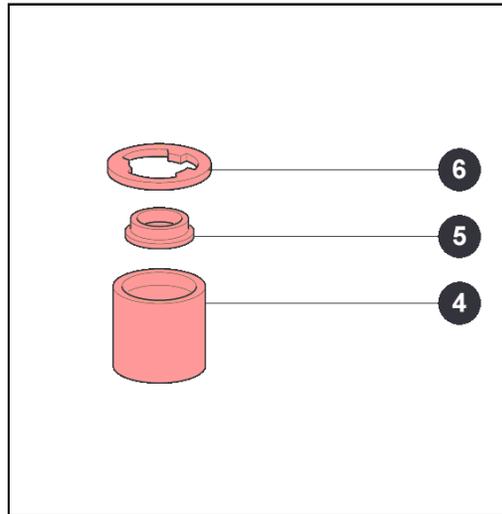
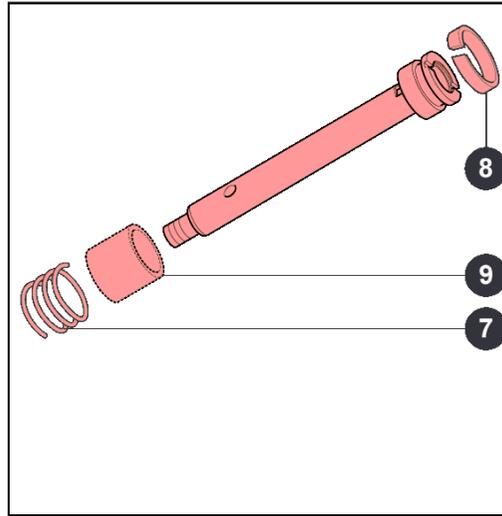
**Take great care not to damage the internal surfaces of the arch-slider assembly when fitting the stop ring.**

- The dust seals shall be refitted when reassembling the crown-stanchion unit / arch-slider assembly.



**ASSEMBLING PUMPING ELEMENT AND VALVE – RIGHT LEG**

- Replace the piston segment (8) if necessary.
- Insert the preload tube (9) (*only for models with 105mm travel*) and the rebound spring (7) in the piston rod.
- Assemble the valve unit in this order: bushing (4), valve (5), three-point ring (6), and check that the parts are oriented as shown.

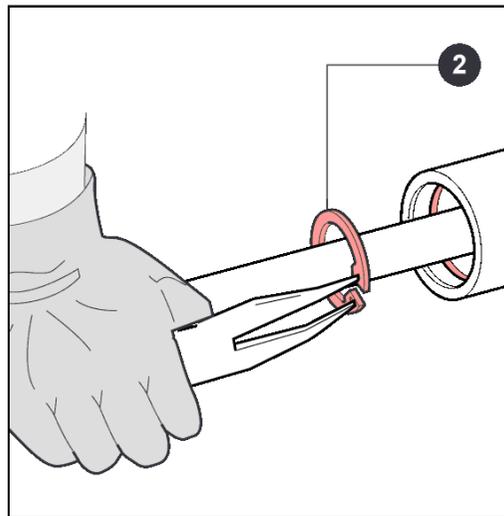
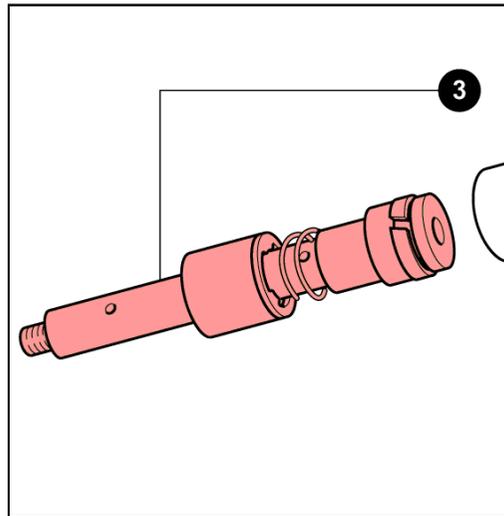


· Insert the pre-assembled valve in the piston rod from the three-point ring side as shown.

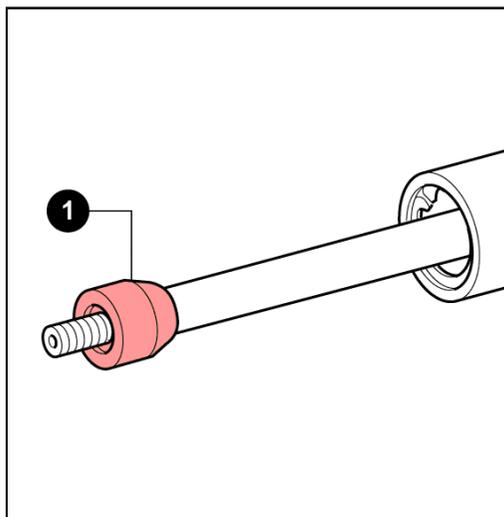
· Insert the valve and the pumping element (3) into the stanchion.

**Take great care not to damage the segment and if necessary use a small flat-tip screwdriver to help the piston of the pumping element into the stanchion.**

· Using the special round-nose pliers, mount the stop ring (2) and check it fits perfectly into its groove.



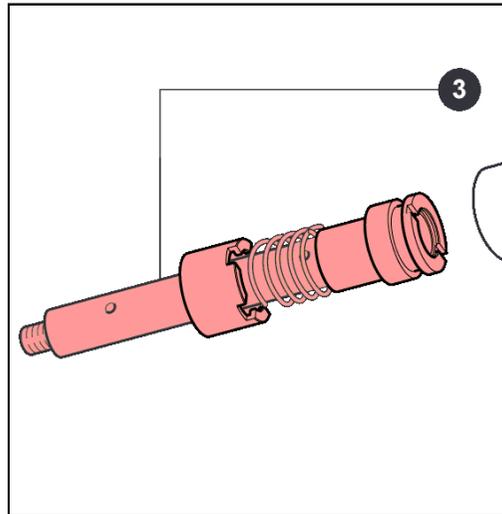
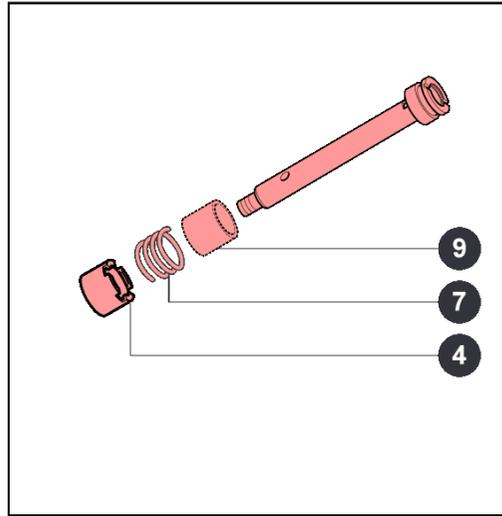
· Fit the bottom pad (1) to the pumping element rod.



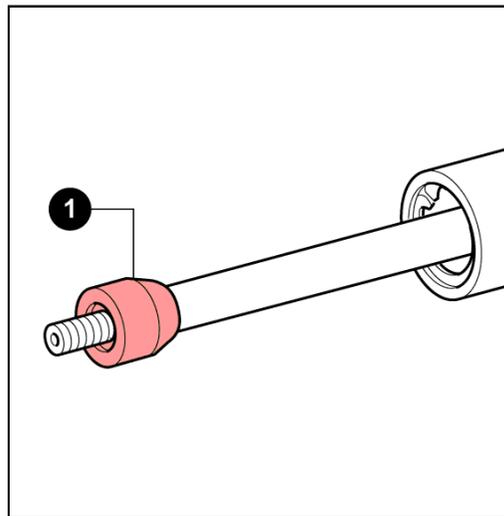
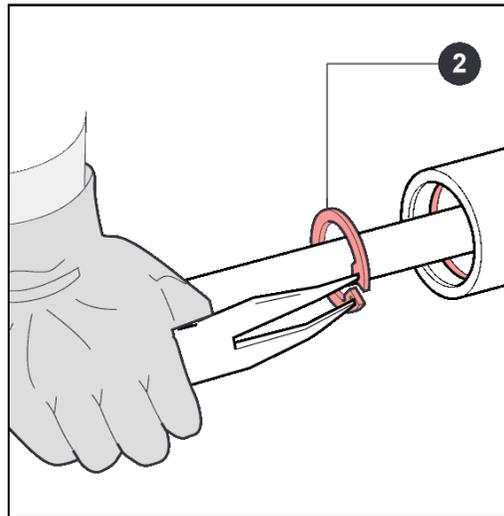
**ASSEMBLING PUMPING ELEMENT AND VALVE - LEFT LEG**

Insert the preload tube (9) (*only for models with 105mm travel*), the rebound spring (7) and bushing (4) in the piston rod.

- Insert the pumping element (3) in the stanchion.
- Insert the piston of the pumping element without any interference.



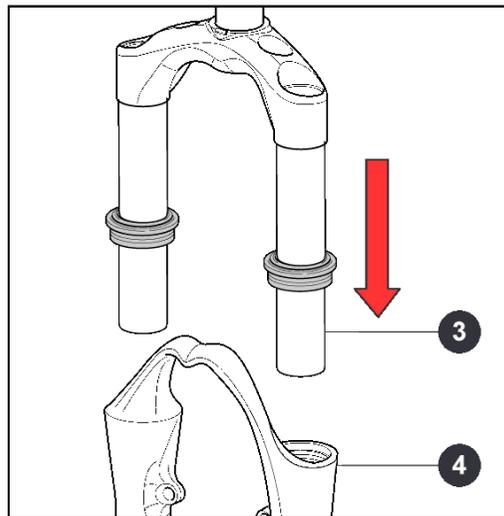
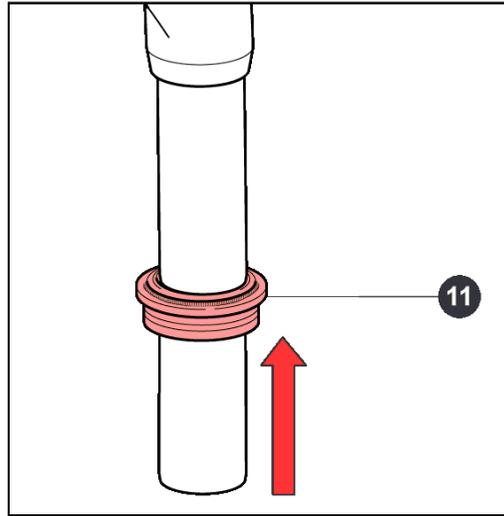
- Using the special round-nose pliers, mount the stop ring (2).
- Check that the stop ring (2) fits perfectly into its groove.
- Fit the bottom pad (1) to the pumping element rod.



**ASSEMBLING THE CROWN-STANCHION UNIT / ARCH-SLIDER ASSEMBLY**

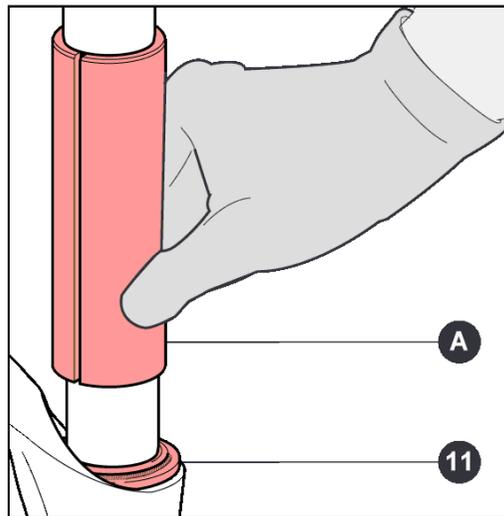
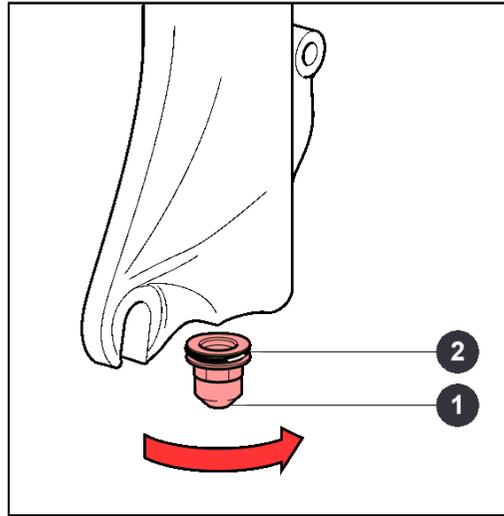
**A special spanner shall be used to assemble the bottom nut. Do not use other tools.**

- Fit the dust seals (11) to the stanchions.
- Insert the crown-stanchion unit (3) in the arch-slider assembly (4).



· With the special 12mm spanner (**A**), tighten the bottom nut (**1**) with O-ring (**2**) of both legs to the recommended tightening torque (11 Nm±1).

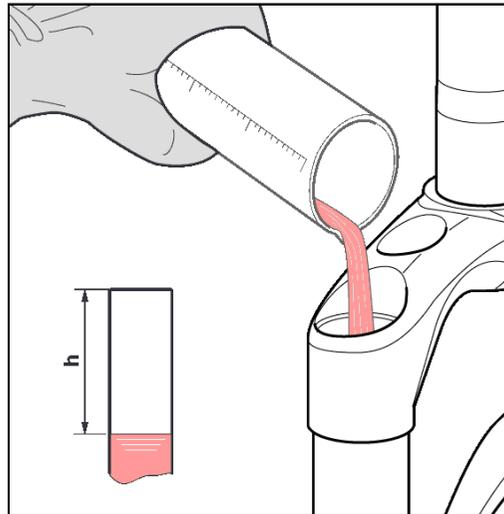
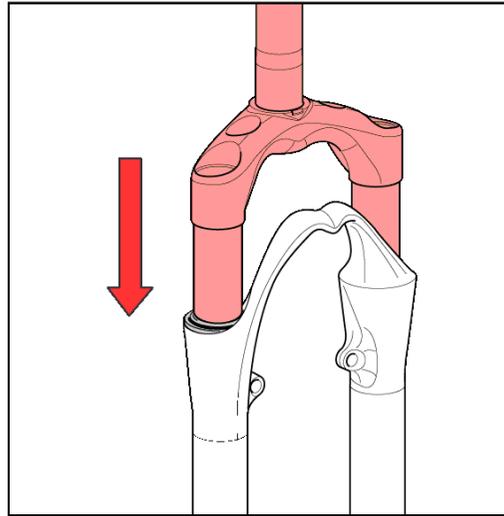
· Reassemble the dust seals (**11**) in their seats using the special introducer (**A**).



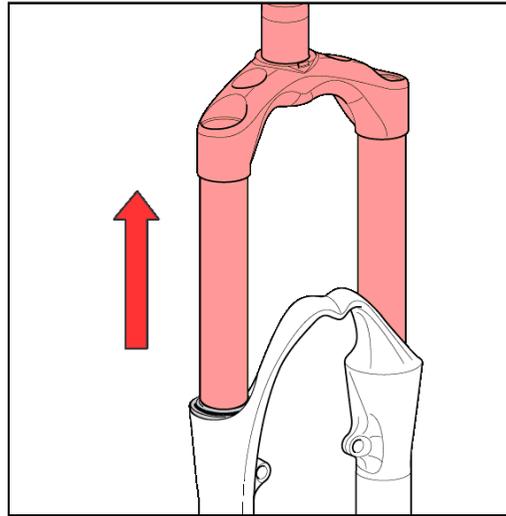
**FILLING WITH OIL**

- Put the fork in the vice in vertical position.
- Lower the crown-stanchion unit on the arch-slider assembly.
- Prepare the quantity of oil to pour into the fork leg (see table).
- Pour roughly 1/3 of the oil required into each stanchion, then pump the fork a few times to remove any traces of air.
- Pour the rest of the oil in.
- Lower again the crown-stanchion unit on the arch-slider assembly.
- Wait for a few minutes and check the volume of the air (h); if necessary refill to the right level.

**A lower or higher volume of air, or a type of oil other than the recommended type can change the behaviour of the fork in every phase.**

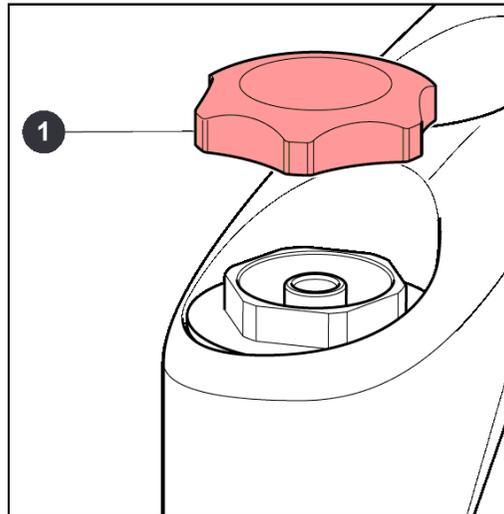
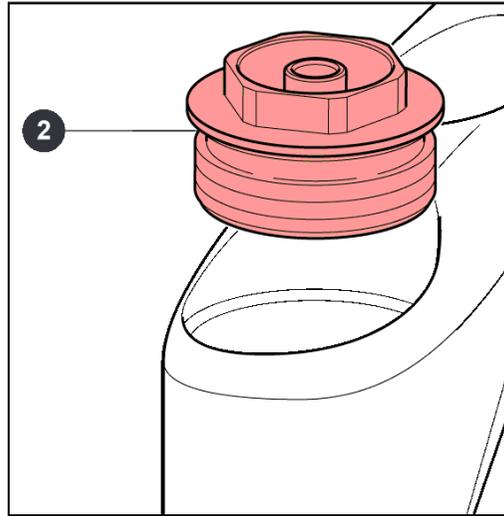


· Lift the crown-stanchion unit on the arch-slider assembly.



**MOUNTING THE TOP CAPS**

- Put the fork in the vice in vertical position, fixing it by the dropouts.
- With the 21mm socket spanner, tighten the lock cap (2) to the recommended tightening torque ( $20 \text{ Nm} \pm 1$ ).
- Restore the preload pressure (see settings).
- Fit the protection cap (1).





**AIR PRELOAD**



**REBOUND ADJUSTMENT**

## AIR PRELOAD

Use the MARZOCCHI pump with pressure gauge to inflate the fork legs.

**Using inadequate tools may lead to a wrong inflation and result in a malfunctioning or damage to the fork.**

To reduce the leg's pressure, simply push the valve pin down with a pointed tool such as a small pin extractor.

**Apply the same preload pressure to both fork legs.**

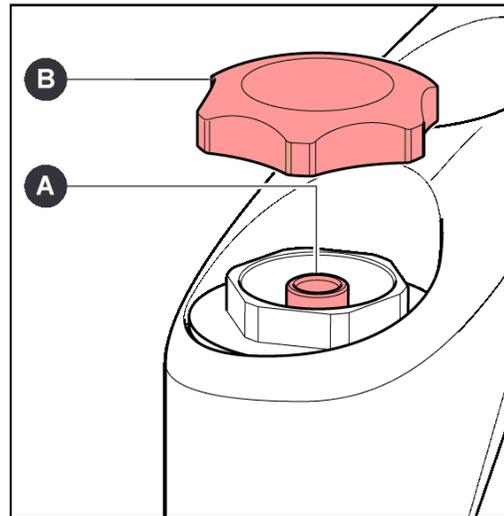
Drawing in compressed air through valve (A) changes the damping of the forces resulting from the COMPRESSION of the fork legs.

Adjusting the leg's pressure increases the preload.

To increase the pressure in the fork leg:

- Remove the protection cap (B).
- Tighten the threaded adapter on the pump.
- Inflate till reaching the pressure you wish (see table).
- Refit the protection cap (B).

The pressure values in the table are given



as a mere example and can be changed to meet the biker's riding style and the track condition.

**REBOUND ADJUSTMENT**

- With the 21mm socket spanner, loosen the lock cap (A).
- Remove the lock cap (A).
- Insert the hexagon rod (B) provided in the stanchion being careful to center the notch of the adjusting screw (C).
- Turning the adjusting screw counter-clockwise increases the hydraulic damping making the fork slower during the rebound phase.
- Turning the adjusting screw clockwise decreases the hydraulic damping making the fork more responsive during the rebound phase.

**Do not force the adjusting screw (C) beyond its limit stops.**

