

## E.1.2. mountain-drive - installation with cone rings

A versatile mode for installation is the installation with cone rings. This allows installation with any frame geometry, with suspension, central boom...

The bevel at both sides of the bottom bracket shell is machined with a milling cutter (available as accessory or as rental tool in most countries: you rent it and send it to the next customer in your country after work has been done).

The cone rings not only hold the reaction torque, they also center the unit perfectly.

Important:

- Correct chamfering (outer diameter of the conical area shall be 39-39.5mm)
- Correct material of the cone ring: aluminum for steel and titanium frame, steel for aluminum frame
- Dry and clean surface without any grease (very important on the right side, where the reaction torque has to be held)
- Correct tightening torque of 140Nm

There are wider cone rings available, if a wider chainline is needed. Or if there is not enough space between chainstay and gear housing.

Please notice: a wider cone ring of 4 and 6mm is used together with a longer nut on the left side.

Important: Don't clamp anything between gear housing and bottom bracket shell! This would reduce the firmness of the seat of the gearing system against the reaction torque seriously and the unit could start spinning under load, when gear is engaged!

Caption:

- Aluminum cone ring with milled grooves on the backside in combination with gear housing with milled grooves



- Milling cutter (available as accessory as well as rental tool in most countries)



- Milling cutter in action



- Four different widths, two different materials (aluminum = silver colour, steel = black colour), three different back side shapes:



- > smooth surface for knurled surface of the housing (left)
- > with 18 milled grooves for a housing with milled grooves
- > knurled surface of a steel cone ring for a knurled surface of a gear housing