

#### 4.2.2. REPLACING THE RIM

The 2 main principles of building the front Crossland and Crossmax Enduro Disc wheels are the following :

- The **non-braking spokes** are placed **in the inside slots** on the hub, disc side as well as non-disc side;
- The **braking spokes** are placed **in the outside slots** on the hub, disc side as well as non-disc side.

##### Tools needed

- 1 alu spoke wrench M40494 or M40652 (for the Crossmax Enduro Disc wheel)
- 1 classic spoke wrench (for the Crossland wheel)
- 1 tensiometer + tension-reading conversion chart adapted to the tensiometer used

1. Start on the disc side ;
2. Turn the rim in front of you so the 2 raised indicator bumps are to the left of the valve hole (valve hole near you) and prepare building the 1st half of the disc side :
  - 2.1. Put a spoke in the first hole to the right of the valve hole (hole near the raised indicator bumps). Then put a spoke in **1 out of every 4 holes** :
    - For the Cosmos and Ksyrium Equipe wheels : Tighten the nipples on the spokes until the nipples start breaking.
    - For the Crossmax Enduro wheel : Tighten the nipple on the rim until the red brake ring disappears.
  - 2.2. Insert these spokes in the **inside** slots on the hub disc side. These are **non-braking** spokes.
3. Then prepare building the **2nd half of the disc side** :
  - 3.1. Put a spoke in the 3rd hole to the right of the valve hole. Then put a spoke in 1 out of every 4 holes, following the nipple adjustment instructions above ;
  - 3.2. Insert these spokes in the **outside** slots on the hub disc side. These are **braking** spokes. The disc side is ready.
4. Turn the wheel over to prepare building the **1st half of the non-disc side** :
  - 4.1. Put a spoke in the 3rd hole to the right of the valve hole. Then put a spoke in 1 out of every 4 holes, following the nipple adjustment instructions above ;
  - 4.2. Insert these spokes in the **inside** slots on the hub non-disc side. These are **non-braking** spokes.
5. Then prepare building the **2nd half of the non-disc side** :
  - 5.1. Put a spoke in the 1st hole to the right of the valve hole. Then put a spoke in 1 out of every 4 holes, following the nipple adjustment instructions above ;
  - 5.2. Insert these spokes in the **outside** slot on the hub non-disc side. These are **braking** spokes. The non-disc side is ready.
6. Tighten every spoke in the rim evenly to adjust the tension of the wheel ;
7. Set the final tension and center the wheel (refer to product pages to know which tension is adapted to each wheel).

The spokes have an anti-rotation system, which prevents them from turning in the hub. When setting the tension of the spokes, they will automatically lock in the hub.

Since they are an ABS type of nipple (Crossland) or integrate a brake ring (Crossmax Enduro Disc), it is not necessary to use thread lock.

**CAUTION :** Manipulating the spoke nipples on the Crossmax Enduro Disc wheel greatly affects the spoke tension and consequently the wheel adjustment. In the final phase of adjusting the tension, 1/4 turn of the nipple corresponds to about 0.3 mm of lateral rim movement.

