

## 2.2. REPLACING THE RIM

### 2.2.1. REPLACING THE FRONT RIM

#### 2.2.1.1. Replacing the front rim on Ellipse, Cosmic Elite and Ksyrium Elite wheels

##### Tools needed

- 1 spoke wrench (Ellipse and Cosmic Elite wheels)
- 1 alu spoke wrench M40494 or M40652 (Ksyrium Elite wheels)
- 1 spoke wrench for aerodynamic spokes M40567
- 1 tensiometer + tension-reading conversion chart adapted to the tensiometer used

The references and lengths of spokes to be used are given in the product pages (pages 6, 7 and 10).

1. Remove the axle (Ellipse and Ksyrium Elite wheels) or unclip the hub caps (Cosmic Elite wheel);
2. Put each spoke on the rim:
  - For Ellipse and Cosmic Elite wheels: by tightening the nipples on the spokes until the nipples start braking;
  - For Ksyrium Elite wheels: by tightening the nipple in the rim until the red brake ring disappears;
3. Put the spokes in the hub;
4. Fix the spokes into their housing by refitting the axle (Ellipse and Ksyrium Elite wheels) or by re-clipping the hub caps (Cosmic Elite wheel);
5. Tighten each spoke 2 turns;
6. Starting with the 2 spokes at either side of the valve, and then the 2 spokes at either side of the weld, tighten each spoke evenly in the rim to tension the wheel;
7. Set the final tension and center the wheel (refer to pages 6, 7 and 10 for the tension adapted to the wheel).

The nipples being of the ABS type (Ellipse and Cosmic Elite) or integrating a brake ring (Ksyrium Elite), it is not necessary to use thread lock.

**WARNING:** Manipulating spoke nipples on Ksyrium Elite and Deemax UST wheels greatly affects the spoke tension and consequently the wheel adjustment. In the final phase of adjusting the tension, a 1/4 turn of the nipple corresponds to about 0.3 mm of lateral rim movement.

