

2.2.2.4. Replacing the rear rim of the Deemax UST wheel

The 2 basic principles for building the Deemax UST rear wheel are the following:

- **Free wheel side:** the **braking spokes** are inserted in the **inside slots of the hub**, and the **traction spokes** in the **outside slots**;
- **Disc side:** the **braking spokes** are inserted in the **outside slots of the hub**, and the **traction spokes** in the **inside slots**;

Tools needed

- 1 alu spoke wrench M40494 or M40652
- 1 tensiometer + tension-reading conversion chart adapted to the tensiometer used

The references and lengths of spokes to be used are given on page 16.

1. Start with the free wheel side;
2. Turn the rim in front of you so the 2 raised indicator bumps are to the right of the valve hole (valve hole near you) and prepare for building the **1st half of the free wheel side (braking spokes)**:
 - 2.1. Put a spoke in the **1st hole to the right of the valve hole** (hole near raised indicator bumps), then 1 hole in 4, and screw the nipple into the rim until the red brake ring disappears;
 - 2.2. Insert these spokes in the **inside slots** on the free wheel side of the hub;
3. Prepare for building the 2nd half of the free wheel side (traction spokes):
 - 3.1. Put a spoke in the **3rd hole to the right of the valve hole**, then 1 hole in 4, and screw the nipple into the rim until the red brake ring disappears;
 - 3.2. Insert these spokes in the **outside slots** on the free wheel side of the hub;
4. Turn the wheel over to prepare for building the **1st half of the non-drive side (traction spokes)**:
 - 4.1. Put a spoke in the **1st hole to the right of the valve hole**, then 1 hole in 4, and screw the nipple into the rim until the red brake ring disappears;
 - 4.2. Insert these spokes in the **inside slots** on the non-drive side of the hub.
5. Prepare for building the **2nd half of the non-drive side (braking spokes)**:
 - 5.1. Put a spoke in the **3rd hole to the right of the valve hole**, then 1 hole in 4, and screw the nipple into the rim until the red brake ring disappears;
 - 5.2. Insert these spokes in the **outside slots** on the non-drive side of the hub;
6. Tighten each spoke 2 turns;
7. 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;
8. Set the final tension and center the wheel (refer to page 16, for the tension adapted to the wheel).

A brake ring is integrated in the nipples, it is therefore not necessary to use thread lock.

**WARNING: Manipulating spoke nipples 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.**

