



Reviewed by: racefietsblog.nl
Published: October - 2017

THE SCOPE R4D: WE COULDN'T FIND ANY DRAWBACKS

Scope is not the first brand from the Netherlands offering carbon wheels. Yet, with the rightful pride the slogan "Developed in the Netherlands" is visible on as well their products and website. This doesn't only apply to the rims, as with many brands, however, at Scope it also applies to the hubs. With the experience of having raced on professional level themselves, combined with the knowledge from the Technical University of Eindhoven (NL), both founders, Nieck Busser and Rik Kusters really know what they are talking about. The entire website is therefore quite technical. Terms like aerodynamics, stiffness, brake performance, and flange distance are returning on

almost every page. Every aspect of their wheels has been developed by themselves, and thoroughly tested. Even though the technology behind the wheels might be complicated, the line-up is clean light.

For road bikes Scope provide three products: the R3, R4 and R5. These three products give you the choice of a 30mm, 45mm or 55mm deep rim. For all three models, Scope offers both a rim brake and a disc brake version. In addition, they offer the O2 for the use in XC mountain bikes and gravel bikes. All Scope wheels have the same recommended retail price of €1398, -. That way one has the chance to select the wheelset which best fits a purpose instead of the wallet: the lightweight R3 with a 30mm deep rim, for climbing, the R4 with a 45mm deep rim, for any kind of terrain and riding, and the R5 with a 55mm deep rim, which is addressed to those who are looking for optimal aerodynamic performance. I have tested the wheels during my stay in the French alps, as well on the flat Dutch roads. For that reason, I chose to put the R4d to test.

ON PAPER

Own rims, own hubs and Sapim spokes. Apart from the spokes all features are developed in-house, in collaboration with TU Eindhoven, which means that Scope can influence most of the characteristics of

the wheels. The rim different types of carbon fibers and patterns are used. Unidirectional carbon (UD) is used in the sidewalls of the rim. This type of carbon is applied to make the wheel stiff, but also able comfortable. Around the spoke holes, Scope has opted to use a 3K woven carbon structure in order to handle the additional forces in that area. The rim shape has been developed in cooperation with the TU Eindhoven with the goal to minimize drag while optimizing stability in crosswind conditions. As a result, the rim features a U-shaped, parabolic shape. The wide internal rim width makes that our 25mm tire measures 26mm when mounted. Furthermore, Scope partnered with Schwalbe to optimize the rims for the use of tubeless tires. However, one can also use regular clincher tires with an inner tube.

Since Scope develops all of its wheels as a system,





they are able to control all aspects of the parts used to build them. They are also able to develop their wheelsets with initially defined design requirements and characteristics in mind. For example, they have made the R4d wheelset as stiff as possible by making the distance between both flanges as wide as possible, resulting in an increased stiffness of the wheel. For the internals of the hub they use SKF bearings as a standard, whereas they also provide a CeramicSpeed upgrade for €500, -.

Although Scope uses Sapim spokes, the spoke pattern still can have a big influence on the riding characteristics of the wheel. In order to achieve equal spoke tension on the drive, and non-drive side – which increases the stiffness, and prevents spokes from breaking – they use a 2:1 spoke pattern. We checked the spoke tension ourselves and could

indeed hardly find any differences between the individual spokes.

MOUNTED

It's nice to look at the technology used to build these wheels. Yet, in the end it's the actual riding impression that counts and that makes the difference. Even though, one can get used to almost anything, Scope wheels gave me a kick every time I was riding them. They look just great and their performance easily knows to match the visual impression. The light weight of the wheels ensures a great acceleration, even when riding uphill. Stiffness, of course, is also very important. And the stiffness of these wheels is certainly more than just good. The wheels remained straight, even when I kicked as hard as possible. I am certainly convinced of the overall strength of these wheels.

I like to ride my bike in France. However, the tarmac is not always as smooth as one would wish for. In the hills one most likely will find some potholes in the road. I hit a few, the wheels stayed true and in perfect condition, though. I was also quite impressed by the comfort of the R4d's. I inflated my tires up to 6.0 and 6.5 bar, which didn't have any negative impact on the rolling resistance. In crosswinds, the wheels were not as sensitive as I am used to when riding with deep aero carbon wheels. The freewheel provides a nice

sound, loud enough to let your pal's know that you're around, but not too loud to be bothering.

CONCLUSION

One of the best upgrades for a bike is a good set of wheels, preferably carbon ones. That's quite a common view. After riding these Scope wheels for over a month, I can share this view completely. Scope wheels make the bike look much nicer, make it lighter, and also more aerodynamic. They are a moral booster. I was impressed by their speed, stiffness and durability. Taking this into account, Scope provides an extremely competitive price for the wheels with their recommended retail price of €1398, -. Since there aren't any drawbacks, we give the R4d our highest score.

DETAILS

- Scope R4d (24/21 spokes)
- Spokes: Sapim CX-Sprint
- Rims: Scope 45mm high, 26mm width
- 19mm internal width
- Weight (set): 1557g
- Recommended retail price: €1398,-
- More information: www.scopecycling.com

HIGHS

- + Stiffness
- + Looks
- + Price (value for money)

LOWS

- None