



A 3D rendering of the Aghata Rust Air System | Photo source [Claire and Joel Dunkl](#)

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PRESSURISED BIKE FRAME REFILLS TYRES ON THE GO

 MOBILITY & TRANSPORT

Choka, a bicycle brand from the Pyrenees, allows riders to pump up their bike frames with air that they can later use to inflate their tyres

Spotted: With the goal of having a world without disposable CO2 cartridges, but which doesn't rely on hand pumps, independent industrial designers Claire and Joel Dunkl have developed a bike frame that doubles as a compressed air tank. Designed in the French Pyrenees region, the Choka is a recyclable aluminium frame that features an airtight down tube with a Schrader valve at the bottom, which allows the user to fill up the frame with a floor pump at home. In addition, there is no risk of overinflating the frame as a security valve automatically releases excess air.

The Choka can be pumped up to 175 PSI (12 bar) and if not all of it is used, the pressure will remain in the frame because the aluminium is not permeable. To fill up a tyre, riders simply have to connect the air hose included in the frame's air valve to the air valve on the tyre and then use a dial on the frame-end of the hose to control the rate at which air is released. In instances where the Choka frame is full, it can fully inflate three 27.5 x 2.80 tyres to 22 PSI (1.5 bar) or two 700 x 45C tyres to 60 PSI (4.1 bar).

The pair have launched a Kickstarter campaign for Choka and will be funded if it reaches its goal by 1st November 2020. Plans are for the Choka to be available in two models: The AGgressive HARd TAil (AGHATA) enduro/all-mountain frame, and the Gravaël Raw frame. The former is built to teach clean riding techniques and can be fitted with both 29- or 27.5-inch wheels, while the latter is built for long rides and can be set up with 650B or 700C wheels. A pledge of €990 will get you either frame, including the air system, bottom bracket and headset.

Written By: Serafina Basciano

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Takeaway:

Although portable bicycle tyre-inflating devices are made for convenience, they come with many negatives, as hand pumps require a lot of effort and CO2 cartridges are single-use only. The way the Choka is designed makes filling up a flat tyre much easier for riders, as they simply have to use a dial to control the amount of air pressure and can even fill up a tubeless tyre. Furthermore, the frames are made of aluminium, which lowers the ecological impact as it is a recyclable material.