

Group test

PORTABLE PUMPS



RICHARD HALLETT
Technical Editor

Tiny pumps are easy to carry but for hassle-free inflation you'll want something bigger. **Richard Hallett** tests four

**INFLATION RATE**

A long, fat barrel will contain more air than a long, slender one but the larger plunger will require greater force to reach a given pressure. Small, narrow pumps that compress little air with each stroke will take forever to fill a fat mountain bike tyre.

SIZE AND WEIGHT

As light as practical. While a small micro-pump may be neat and unobtrusive, it is a waste of space if it doesn't work as expected when required.

MAXIMUM PRESSURE

Around 100psi is enough for almost any bike used on the road. Few mountain bikers will need more than 40psi.

PRESSURE GAUGE

Useful out on the road or trail, and at home if you don't have a track pump or a separate gauge, but not obligatory.

CONNECTOR

Push-on connectors for Presta valves are quick to use but risk damaging the valve. A hose is easier to fit and can be configured to work with a Schrader valve, but contains 'dead' air and makes it harder to reach high pressures.

STORAGE

Frame-fitting pumps take up space by a frame tube unless placed along a seat stay using a suitable peg. Some pumps fit to a clip under a bottle cage. Smaller ones may fit a pocket or hydration pack.

THE PORTABLE CYCLE pump was once a simple affair, with either a hose or integral push-on connector depending on the sporting or utility aspirations of its owner. Today it may as easily be a miniaturised floor pump complete with extension hose, pressure gauge, and fold-out foot.

These additions add weight and bulk but offer a practical alternative to the hand pump for anyone who has struggled to apply enough force with hand and arm strength alone or damaged the tiny

threaded stem of a Presta valve while fitting a push-on connector.

The ideal pump is one that you can use easily and effectively to reach the pressure you need. The time taken to get there is less important unless competing, in which case it is worth considering a gas canister inflation system. As a rule, a fast-acting pump with a fat barrel and plunger that compress a lot of air with each stroke will reach a lower maximum pressure; slender is good if you want to get to 100psi with relative ease.

Fix that puncture

If you need a refresher on how to fix a puncture, have a look at the video on the Cycling UK website: [cyclinguk.org/article/technical-guide/video-repair-puncture](https://www.cyclinguk.org/article/technical-guide/video-repair-puncture)

1 TOPEAK TURBO MORPH DIGITAL £59.99

EXTRAUK.CO.UK

Large and weighty (270g), the Turbo Morph Digital occupies a middle ground between track (i.e. floor) pumps proper and the current breed of mini floor pump. Just under 360mm in folded length, it provides a decent stroke and, with it, the potential ability to inflate to a claimed maximum of 160psi. You'll know if you get there thanks to the digital pressure gauge, which displays in a choice of psi, bar and Kg/cm². The gauge folds out from the body once the connector is unclipped. Equipped with a flip lever, and needing manual conversion between Presta and Schrader valve formats, the connector sits at the end of a part flexible, part rigid hose short enough to require the valve to be near the ground. The sizeable handle clips to the body for stowage and flips 90° for use. A fold-out foot improves stability but feels flimsy. I got to 60psi easily enough, but effort was beginning to ramp up and the pump's lack of stability on uneven ground undermined my confidence in reaching that quoted maximum.

2 LEZYNE MICRO FLOOR DRIVE DIGITAL HPG £80 UPGRADEBIKES.CO.UK

Beautifully-made in the Lezyne tradition, the Micro Floor Drive Digital HPG is small, neat, and unobtrusive but for the plastic-bodied digital gauge. The hose, which wraps over the handle and threads into the foot for stowage, is long enough to reach a tyre valve in almost any orientation. The connector screws onto the valve stem and, used with a Schrader valve, offers the ability to bleed off excess pressure. A press-on 'speed chuck' is provided along with adaptors for football and airbed inflation. The sturdy fold-out stainless steel foot adds stability when the pump is used on the floor, but its height requires a crouch. The Lezyne also works well when used hand pump-style. The rounded handle is comfortable right up to the 90psi maximum claimed by Lezyne, although the pump can do significantly better than that



VERDICT:
Functional but complex and bulky

VERDICT:
Well-made, versatile, and effective

VERDICT:
Low on pressure and comfort, high on styling

VERDICT:
Effective and inexpensive

if needed. The plain HP version, which has no gauge, shaves 58g from the Digital pump's 208g weight and arguably looks neater.

3 FABRIC MEGABAR £44.99 FABRIC.CC

Though it's referred to as a 'dual valve mini-pump', this pump is not 'mini': it's 410mm long and weighs 300g. It's a big, bold pump with a handsome finish and... not a whole lot of performance. Fabric claim it will reach 50psi, which is a little parsimonious, but the barrel's width means that the last 10psi takes considerable effort. The pump works well on wider tyres that need no more than 40psi, but there's another issue. It uses a steel-braided hose connector stored, when not in use, inside the stylish wooden handle and screwed in for security. The threaded insert has a sharp edge that presses into the palm of the hand, making it more comfortable (but less effective) to grasp the handle umbrella-style. The ingenious connector works on both Schrader and Presta valves without needing a conversion procedure.

4 ZÉFAL HPX £26.99 CHICKENCYCLEKIT.CO.UK

This classic frame-fitting pump will reach 150psi with relative ease, and comes in four sizes to fit most diamond frames. It's fairly basic: there's a reversible connector with closing lever that will fit Schrader or Presta valves, a rotating tip to the handle so the pump can be spring-loaded for secure frame fitting, and a textured grip for the barrel. The plunger can be removed for lubrication and, provided care is taken not to dent the aluminium barrel, the pump should last indefinitely. There's an indent in the head for a frame pump peg if available; otherwise, the HPX is best fitted in front of the seat tube, where it unfortunately takes up bottle cage space. The design is sober and slightly hard edged, but it works.



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