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SIZE MATTERS

A mini mini-pump test

You've seen them hanging in the tool section of your favorite shop, those tiny mini-pumps, many less than 20 centimeters in length. They look so tempting. They're small enough to fit in a jersey pocket with the promise of salvaging your ride after a puncture.

These pumps become even more enticing when you weigh the alternatives. Most frame pumps must be sized to specific top tubes. And threaded CO₂ cartridges cost upwards of \$3. But do these ultra mini-pumps work? After putting nine new models to the test, the answer to that question varies. Most can get you out of a jam, but to put it bluntly there weren't many winners in our test.

READY, SET, PUMP

We tested nine pumps that were 20 centimeters or less in length. Five were rated for mountain-bike use: the Crank Brothers Power Pump Ultra, Innovations Second Wind MTB, Silca 2-Step, Planet Bike Micro Mite and Pro Quicker. These were tested on both mountain and road tires. The remaining four pumps were only recommended for road use: the Barbieri Pocket, Innovations Second Wind Road, Silca Mini-Mini and Topeak Micro Rocket CB, and thus were only tested on a road tire. We used the same tires throughout the tests: a 700x23c Continental road tire and 26x2.10 Schwalbe mountain tire. For our sanity, pumping was capped at 500 strokes. Pressures were checked using a digital gauge at 100-stroke intervals up to 300 strokes and then at 50-stroke intervals above 300. The subjective qualities of sturdiness and ease of use were rated on a scale of 1-10, with 10 being the best.



Crank Brothers Power Pump Ultra

INTENDED USE: road or mountain
PRICE: \$25
COLLAPSED LENGTH: 17.5 cm
EXTENDED LENGTH: 26.0 cm
WEIGHT: 130 grams
WIDTH: 3.5 cm
STROKES TO 100 PSI (ROAD): 400 strokes/102 psi
STROKES TO 35 PSI (MOUNTAIN): 300 strokes/35 psi
EASE OF USE: 4
STURDINESS: 9

FEATURES: Automatic dual-function locking head, high-pressure and high-volume modes, dual-action piston, alloy construction

COMMENTS: Set in the high-volume mode, 100 strokes took us to 52 psi before becoming too hard to operate. The high-pressure mode took us 300 strokes to finish the job, and at times the action was quite hard, but it was manageable. The alloy construction and sturdy head merited the high sturdiness score. The ease-of-use score suffered because of the effort required to reach higher pressures.

Barbieri Pocket

INTENDED USE: road
PRICE: \$22
COLLAPSED LENGTH: 16.2 cm
EXTENDED LENGTH: 25.0 cm
WEIGHT: 55 grams
WIDTH: 2 cm
STROKES TO 100 PSI (ROAD): N/A (500 strokes/44 psi)
EASE OF USE: 1
STURDINESS: 1

FEATURES: Manually adjustable head, carbon fiber barrel
COMMENTS: The Barbieri Pocket would have left us stranded on the side of the road. The pump only achieved 44 psi with 500 strokes. On a second attempt the pump's main barrel seal broke, rendering it unusable.



Innovations Second Wind Road

INTENDED USE: road
PRICE: \$50
COLLAPSED LENGTH: 177 cm
EXTENDED LENGTH: 261 cm
WEIGHT: 69 grams
WIDTH: 2 cm
STROKES TO 100 PSI (ROAD): 300 strokes/100 psi
EASE OF USE: 8
STURDINESS: 7

FEATURES: Carbon fiber barrel, doubles as a CO₂ inflator, an empty CO₂ cartridge screws into the handle to enhance grip and comfort, presta valve only

COMMENTS: The Second Wind Road pump is really only meant to be a backup to the main CO₂ inflator function. If you had to fill a tire without a CO₂ cartridge as a handle, it would be miserable to use. I also have reservations about how well the rubber valve seal will hold up to repeated use.



Innovations Second Wind MTB

INTENDED USE: mountain
PRICE: \$30
COLLAPSED LENGTH: 16.0 cm
EXTENDED LENGTH: 25.0 cm
WEIGHT: 120 grams
WIDTH: 3.0 cm
STROKES TO 100 PSI (ROAD): 400 strokes/107 psi
STROKES TO 35 PSI (MOUNTAIN): 350 strokes/35 psi
EASE OF USE: 4
STURDINESS: 9

FEATURES: Automatic dual-function locking head, doubles as a CO₂ inflator accepting threaded or non-threaded cartridges, alloy barrel

COMMENTS: Since the Second Wind has a small single volume chamber, the action becomes extremely hard at higher pressures, but the pump does work and would get you home from a mountain or road ride. Keep in mind the manual pump is designed as a second line of defense if you run out of CO₂ cartridges. With that in mind, its performance was commendable. The head and main seal is top-notch, it looks to be one of the sturdiest in the test.

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Planet Bike Micromite

INTENDED USE: road or mountain

PRICE: \$15

COLLAPSED LENGTH: 19.0 cm

EXTENDED LENGTH: 35.0 cm

WEIGHT: 115 grams

WIDTH: 3.0 cm

STROKES TO 100 PSI (ROAD): 350 strokes/101 psi

STROKES TO 35 PSI (MOUNTAIN): 350 strokes/35.5 psi

EASE OF USE: 8

STURDINESS: 7

FEATURES: Automatic dual-function locking head, high-volume and high-pressure modes, collapsible T-handle, composite plastic barrel

COMMENTS: The Planet Bike Micro Mite has a well-designed, sturdy head. The locking feature aids in inflation, as do its dual-pressure modes. While the unit is well built and its seals seem durable, its all-plastic construction may not wear as well as an alloy body.



Pro Quicker

INTENDED USE: road or mountain

PRICE: \$35

COLLAPSED LENGTH: 18.7 cm

EXTENDED LENGTH: 43.0 cm

WEIGHT: 180 grams

WIDTH: 3.5 cm

STROKES TO 100 PSI (ROAD): 100 strokes/101.1 psi

STROKES TO 35 PSI (MOUNTAIN): 200 strokes/40 psi

EASE OF USE: 10

STURDINESS: 9

FEATURES: Manually adjustable dual-function locking head, built in pressure gauge, patented multi-chamber double-action alloy barrel

COMMENTS: Hands down the best pump in the test. The Pro Quicker reached 100 psi and 35 psi with the fewest strokes and with the least amount of effort. The large rubber coated handle was comfortable, but the built in gauge didn't read accurately. The Pro Quicker also has a sturdy locking head.



Silca Mini-Mini

INTENDED USE: road

PRICE: \$14

COLLAPSED LENGTH: 16.5 cm

EXTENDED LENGTH: 28.0 cm

WEIGHT: 95 grams

WIDTH: 3.0 cm

STROKES TO 100 PSI (ROAD): 400 strokes/108 psi

EASE OF USE: 4

STURDINESS: 8

FEATURES: Manually adjustable head, alloy barrel

COMMENTS: Silca's mini-mini gets the job done, but at high pressure the action is quite difficult. The head doesn't lock, but it fits securely and the main seal seems durable.

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Silca 2-Step

INTENDED USE: road or mountain
PRICE: \$18
COLLAPSED LENGTH: 19.5 cm
EXTENDED LENGTH: 41.0 cm
WEIGHT: 115 grams
WIDTH: 3.0 cm
STROKES TO 100 PSI (ROAD): 200 strokes/105.5 psi
STROKES TO 35 PSI (MOUNTAIN): 300 strokes/36.5 psi
EASE OF USE: 9
STURDINESS: 8
FEATURES: Manually adjustable head, telescopic alloy barrel
COMMENTS: The 2-Step is just a little larger than the Mini-Mini, but is superior in terms of the ease of use and its ability to fill both mountain and road tires. Its pumping action is one of the lightest in the test. In fact, the 2-Step came in a clear second place behind the Pro Quicker. Considering its lighter weight and narrower width, some may actually prefer it.



Topeak Micro Rocket CB

INTENDED USE: road
PRICE: \$43
COLLAPSED LENGTH: 16.0 cm
EXTENDED LENGTH: 25.5 cm
WEIGHT: 65 grams
WIDTH: 2.0 cm
STROKES TO 100 PSI: 500 strokes/92.5 psi
EASE OF USE: 3
STURDINESS: 9
FEATURES: Single action, locking handle, presta valve only

THE VERDICT:

Which will you find in our jersey pocket?

The most versatile and efficient pump in the test was the Pro Quicker, though it wasn't the smallest. Coming in a close second based on its pumping efficiency and versatility was Silca's 2-Step. Both of the Innovations pumps are well-built and will get you home, but because of its ability to inflate both mountain and road tires we'll recommend the Second Wind MTB, which also costs less than the road version. Crank Brothers Power Pump Ultra is another that will get you out of a jam, and it's tiny, but your friends may have a laugh at your expense if you have to use it. Both the Topeak Micro Rocket CB and Barbieri Pocket pumps are unbelievably small and quite the novelty to show your riding buddies. If you have to use the Topeak Micro Rocket it will likely work, but it could be a frustrating experience. If you flat with the Barbieri in your pocket, you may need to use your thumb in another way — to hitch a ride.

— MATT PACOCHA

COMMENTS: The Topeak Micro Rocket CB is beautifully made. Its quality and construction is close to the best in this test. The only reason it didn't get a 10 in the sturdiness category is that its valve seal showed wear after only a few uses. Because the Micro Rocket is so small, it doesn't push much air per stroke and it topped out at 500 strokes. As for ease of use, its size again hurt it. There wasn't much to hold onto and it was tough to operate over 75 psi.

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