

»In the lab«

TYRE PRESSURE GAUGES

Correct tyre pressures mean the difference between razor-sharp handling and jelly-like wobbling, so it's crucial to use an accurate gauge

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How we did it

Accuracy test However good your tyres are, they're not doing their job properly if they're not inflated to the correct pressure. Tyre temperature, contact patch size and rigidity are crucial for good handling and tyre pressure affects every one.

Satra Technology Centre, an accredited laboratory, tested accuracy using a Druck DPI601 pressure calibrator - a measuring device accurate to within 0.01 pounds per square inch (psi). Performance was checked at 1, 5, 10, 20, 30, 40 and 50psi. By testing three examples of each gauge, we were also able to assess manufacturers' quality control. The scores reflect the average accuracy for all three gauges over the range of pressures tested.

Ease of use We tried the gauges on various bikes with different types of wheels to find how easy they are to push and seal onto the valve, whether they can get past two large discs on the front wheel of a sports bike, how easy they are to read and whether they're small enough to carry around. Ultra-convenience comes with gauges that enable the user to bleed air out of the tyre while leaving the gauge on the valve.

Build quality We looked at the finish and robustness. Marks were awarded for gauges fitted with some form of protective finish, to help them survive a bit of clumsiness. Where appropriate, we wiped plastic windows with petrol to see if they fogged up.

Know this

TOO MUCH PRESSURE and the tyre won't flex. It'll run too cool and work the suspension hard. It will have a small contact patch and give less grip. Your bike will feel skittish.

Reducing pressure to increase grip also has limits. Too low a pressure means the tyre won't have the rigidity to maintain a stable contact patch. An excessively soft tyre will overheat, cause the bike to weave, reduce

top speed, increase fuel consumption and wear quickly.

Check pressures at least once a week when tyres are cold, using the same gauge every time.

And if the worst should happen, the police will check tyre pressures at the scene of an accident and compare them with the manufacturer's recommendations. Their findings can be used as prosecution evidence.

1= Weldtite

Price £6.35
Contact 08704 282272
www.bickersplc.com

Tester's notes

Excellent performance and excellent value. The average accuracy over the complete range tested was within 0.3psi. The working range is 6-50psi in 1psi increments and 0.5-3.4bar in 0.1bar increments. There's a valve removing/tightening key in the cap and a pocket clip on the body. It's more accurate than the Draper pencil, which is surprising because they look like they come out of the same factory.

Accuracy	8/10
Ease of use	9/10
Build quality	9/10
Total	26/30



1= Snap-On Blue-Point

Price £29.90
Contact www.snapon.com/uk

Tester's notes

Graduated in 1psi intervals over a range of 4-100psi, and easily readable to 0.5psi. The sturdy design includes a brass bleed valve and a 'reading hold' feature. It's easy to locate and seal onto the valve with a flexible hose that swivels at both ends. Good accuracy over the entire range with an average error of 0.3psi. The brass Bourdon mechanism will give accurate readings time and time again over years.

Accuracy	8/10
Ease of use	9/10
Build quality	9/10
Total	26/30



3= Draper with flexible hose

Price £12.69
Contact 023 8026 6355
www.draper.co.uk

Tester's notes

The brass bleed valve and swivelling, angled head have a high-quality feel, and there's a robust rubber-housed dial. It's simple to locate and read thanks to its 250mm flexible braided hose. The accuracy is good, with an average error of 0.7psi over the complete range tested. It's graduated 5-100psi in 1psi increments, although it's readable to 0.5psi, and 0.3-7bar in 0.1bar increments.

Accuracy	6/10
Ease of use	9/10
Build quality	9/10
Total	24/30



3= Halfords mini digital

Price £4.99
Contact www.halfords.com

Tester's notes

This low-priced digital gauge is designed to be thrown away once the battery has worn down. It has an automatic on/off switch and a working range of 5-60psi with 1psi resolution. Its small size makes it easy to carry in a pocket and easy to use on most bikes. It seals on tyre valves well and has good accuracy for such a small gauge, the average error being 0.3psi.

Accuracy	8/10
Ease of use	9/10
Build quality	7/10
Total	24/30



5= Motrax digital keyring

Price £9.99
Contact 01933 418414
www.motrax.co.uk

Tester's notes

It's designed to fit on a key ring, although the clip mechanism doesn't look like it'll take much knocking around. Digital LCD readings are possible in psi, bar, kPa and kg/cm squared. The range is 2-150 psi with 0.5psi resolution. Easy to use due to its small size, and the accuracy is good with an average error of 0.4psi.

Accuracy	7/10
Ease of use	9/10
Build quality	7/10
Total	23/30



5= Draper Expert

Price £6.52
Contact 023 8026 6355
www.draper.co.uk

Tester's notes

Pencil-type gauge featuring a pocket clip and a valve-tightening/unscrewing tool in the cap. It's graduated from 6-50psi in 1psi increments, although readable to 0.5psi and 0.5-3.4bar in 0.1bar increments. Looks like it will last forever being a simple mechanical construction. Simple to use. Average accuracy within 1.4psi over the range tested.

Accuracy	5/10
Ease of use	9/10
Build quality	9/10
Total	23/30



5= Halfords long nose

Price £14.99
Contact www.halfords.com

Tester's notes

This large digital gauge is reasonably accurate, with an average error of 0.5psi over the range tested, and a biggest single error of 0.7psi at the 50psi test pressure. The working range is 5-99psi with 0.5psi resolution. One of the easiest gauges here to get onto valves thanks to a shape that makes it possible to use one-handed, it features auto on/off.

Accuracy	7/10
Ease of use	9/10
Build quality	7/10
Total	23/30



5= Longacre digital

Price £26.05
Contact 01978 664474
www.demon-tweeks.co.uk

Tester's notes

Unbelievably accurate digital readout gauge - one of our three gauges was perfectly accurate, the other two just 0.5psi out on one reading each. The range is 0-100psi in 0.5psi increments and it also reads in bar, kg/cm squared and kPa. It features a bleed valve and is reasonably easy to use but would be better with a swivelling hose end.

Accuracy	9/10
Ease of use	7/10
Build quality	7/10
Total	23/30



9= Sealey gauge with clip-on

Price £16.39
Contact 01284 757500
www.sealey.co.uk

Tester's notes

This gauge gives good accuracy over the testing range, with an average error of 0.6psi. The working range is 0-100psi in 2psi increments, but readable to 1psi. It's also graduated to 7bar in 0.1bar increments. The brass end fittings don't swivel, which can make it slightly awkward to read, but the hose end is designed to clip on to the valve. The dial is encased in rubber and feels robust.

Accuracy	6/10
Ease of use	8/10
Build quality	8/10
Total	22/30



9= Motrax digital

Price £14.99
Contact 01933 418414
www.motrax.co.uk

Tester's notes

This includes a built-in LED flashlight and a large backlit LCD display, but is compact enough to fit reasonably easily between front brake discs thanks to a swivelling head, which also features a valve-bleeding pip. Its working range is 5-100psi with 0.5psi resolution and it gives great accuracy, with an average error of just 0.2psi over the complete range tested.



Accuracy	8/10
Ease of use	7/10
Build quality	7/10
Total	22/30

9= Oxford Digi

Price £16.99
Contact 01993 862300
www.oxprod.com

Tester's notes

Great accuracy with an average error of 0.2psi over the range tested. The working range is 0 to 199.9psi, to 0.1psi resolution, and it also reads in bar, kPa and kg/cm squared. As well as conventional Schraeder tyre valves it can also be used on Presta valves (the narrow valves found on pushbikes) by swivelling the head through 180 degrees. It features a backlit LCD display, flashlight and bleed valve.



Accuracy	8/10
Ease of use	7/10
Build quality	7/10
Total	22/30

16= Sealey

Price £4.41
Contact 01284 757500
www.sealey.co.uk

Tester's notes

This is the least accurate gauge here, but the packaging states that it is 'suitable for guide readings', so you know what you're getting. The working range is 5 to 50psi in 1psi increments and 0.35-3.45bar in 0.1bar increments. The average error was 1.9psi with a maximum single error of 9psi at 50psi test pressure. Simple to use, but not as robust as others here, it comes with a clip and a valve deflator pip on the head.



Accuracy	4/10
Ease of use	9/10
Build quality	6/10
Total	19/30

16= Hein Gericke analogue

Price £14.99
Contact 0800 165165
www.hein-gericke.co.uk

Tester's notes

Graduated from 8 to 130psi in 2psi increments and 60-860 kPa in 20kPa increments, it has an average error of 1.4psi, although the accuracy is generally better over 30psi. The rubber-covered dial makes it durable but the pressure-reading head doesn't rotate, making it difficult to locate on the valve, especially with twin front discs. The built-in tread depth gauge gives readings in mm and 1/32 of an inch.



Accuracy	5/10
Ease of use	5/10
Build quality	9/10
Total	19/30

12= Tech 7

Price £8.99
Contact 0844 815 6571
www.mandp.com

Tester's notes

No working range is stated but ours went up to 75psi (the maximum we dare inflate to) without problem. It reads pressure in psi, kPa and bar, with resolution to 0.5psi. It's reasonably easy to manoeuvre between front discs but the handle is ineffective - the gauge needs a good push down on the head right on top of the valve. Accuracy is reasonable, with the average error 0.5psi.



Accuracy	7/10
Ease of use	7/10
Build quality	7/10
Total	21/30

12= Hein Gericke analogue

Price £8.99
Contact 0800 16516
www.hein-gericke.co.uk

Tester's notes

Reads from 3 to 60psi in 1psi increments and 0.2 to 4 bar in 0.1bar increments, this analogue gauge has a robustness provided by a rubber-covered dial. A valve bleeding pip on the pressure reading head is handy, but the head itself doesn't rotate, making it awkward to locate and seal with twin front brake discs. Accuracy is fair, particularly over 30psi, with the average error 0.4psi, and good consistency between gauges.



Accuracy	7/10
Ease of use	5/10
Build quality	9/10
Total	21/30

18 Sealey tyre pressure and

Price £23.44
Contact 01284 757500
www.sealey.co.uk

Tester's notes

This gauge has a working range from zero to 99.5psi with 0.5psi resolution; it also reads in bar, kPa and kg/cm squared. Average accuracy was to within 1.2psi, the biggest single error being 3.5psi at a test pressure of 50psi. The LCD display is backlit and there's a tyre depth tread measure. The bulky handle means it's awkward to locate onto front tyre valves with twin brake discs.



Accuracy	5/10
Ease of use	6/10
Build quality	7/10
Total	18/30

19 Flaig Precision

Price £19
Contact 01626 830458
www.nippynormans.com

Tester's notes

This gauge has a robust metal outer and a valve insertion point that's at 90° to the stem, but it's tricky to get a decent seal onto the valve. Operation requires a fiddly pushbutton sequence to get a reading. The plastic window fogged on contact with petrol - the only gauge here to do so. Its range is 0 to 57psi in 1psi increments and 0-4bar in 0.1bar increments, with an average error of 0.3psi.



Accuracy	7/10
Ease of use	4/10
Build quality	6/10
Total	17/30

12= Draper digital

Price £18.19
Contact 023 8026 6355
www.draper.co.uk

Tester's notes

The display is backlit, but the bulky handle is a pain to manoeuvre between twin front brake discs - locating it on the valve and achieving a good seal is tricky. The range is 2 to 99.5psi in 0.5psi increments, and it also reads in kPa and 0.15-7bar in 0.05bar increments. There's good accuracy, with an average of 0.2psi out over the complete range tested. It comes with a 3V lithium long-life battery.



Accuracy	8/10
Ease of use	6/10
Build quality	7/10
Total	21/30

12= Oxford Air Gauge

Price £9.99
Contact 01993 862300
www.oxprod.com

Tester's notes

This gauge reads in psi with 0.5psi resolution, plus kPa and bar. There's no working range stated but ours went up to 75psi (the maximum we dare inflate to). The average error is 0.9psi. It's reasonably easy to use and locate between front discs but the handle is ineffective as the gauge needs a good push down on the head right on top of the valve.



Accuracy	6/10
Ease of use	8/10
Build quality	7/10
Total	21/30

! THE VERDICT

You can't argue with good accuracy and consistency in a pocket-size package - especially not for as little as £6.35. So the traditionally styled, easy-to-use Weldtite is this month's Best Buy. The more expensive Snap-On Blue-Point is recommended for a similarly brilliant performance, and it has the quality that makes it the choice of professionals. We were pleasantly surprised by the good overall accuracy of most gauges

in this test - an average error of 1psi or less is next to nothing and shouldn't affect handling. You can use those gauges with confidence.

NEXT MONTH

All-season boots - the reason RiDE testers aren't complaining about any wet weather. Don't splash out on any waterproof footwear until you've read this.

