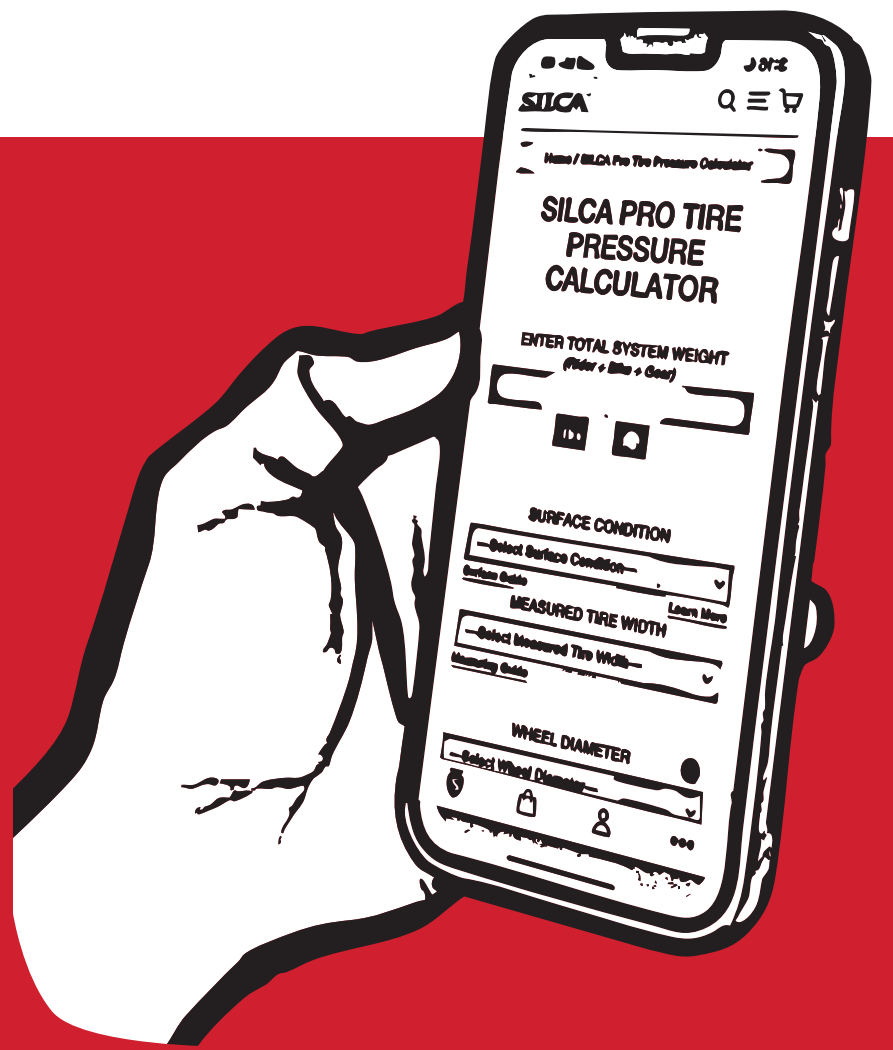




# PRO TIRE PRESSURE Calculator Guide



## PRECISION TIRE PRESSURE: The Small Detail That Changes Everything

Feel the difference in every ride, every corner, and with every descent.

**Correct tire pressure** is one of the most impactful – and often overlooked – aspects of bike performance. It directly affects comfort, grip, rolling resistance, and tire wear. Getting it right delivers real marginal gains, often more than changing wheels or tires. Yet many riders still guess or rely on sidewall PSI numbers, which are maximum inflation ratings – not performance recommendations.



That said, **it depends**. Your riding surface, environmental conditions, bike setup, and total weight all influence **ideal pressure**. This guide provides a starting point you can adjust based on how and where you ride.

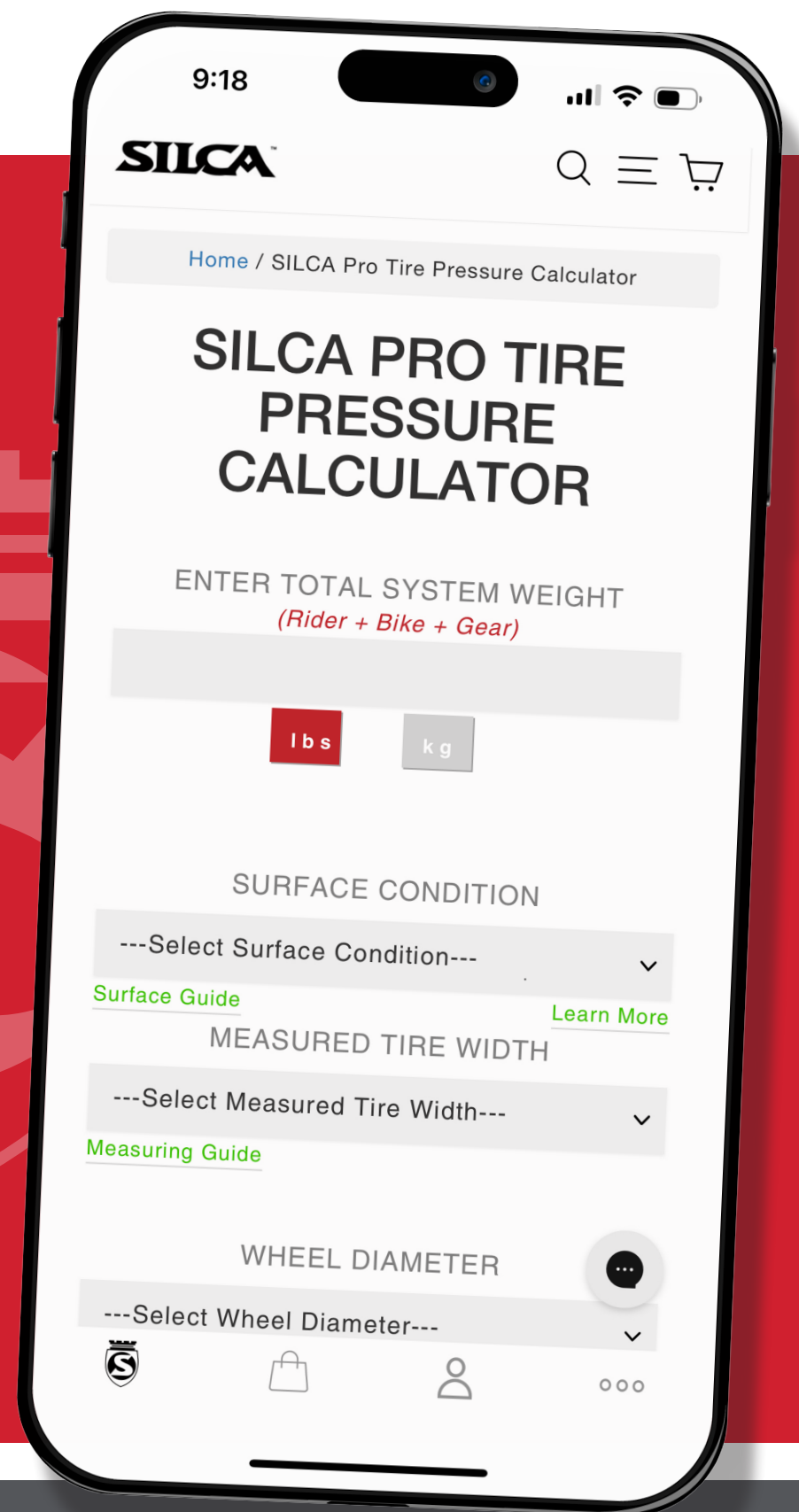
### How to Use the SILCA Tire Pressure Calculator

Available at the top of [silca.cc](https://silca.cc) or in the SILCA **app**, the calculator is built on pro-level testing and real-world dynamics.

#### You'll need:

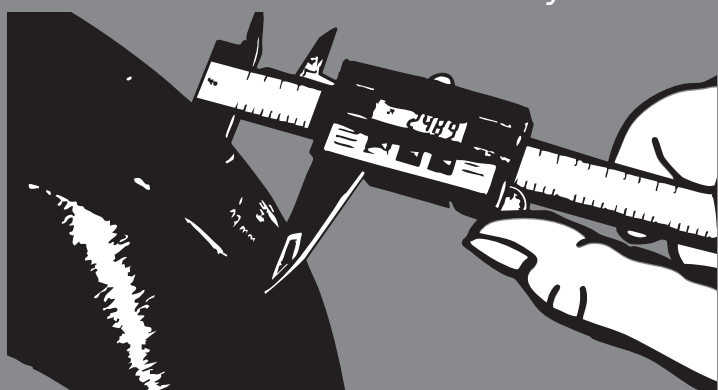
- **Total system weight** (rider + bike + gear)
- Measured **tire width** (not sidewall label)
- Wheel **diameter**
- **Terrain type** or **surface condition**
- Tubeless, tubed or tubular **setup**
- Approximate **average speed**
- Estimated **front/rear weight distribution**

The calculator returns optimized front and rear pressures based on the factors above, using SILCA's proven models of rolling resistance, comfort, and traction.



### Measuring Tire Width Accurately

Use calipers to measure the tire casing at its widest point, fully mounted and inflated on your rims. Actual width may differ significantly from labeled width – and it's the key driver of ideal pressure. This is especially important with today's wide rims, high-volume tires, and aero profiles.



### When to Use the Calculator

- Pre-season setup & equipment testing
- When switching tires, wheels, or going tubeless
- Before races or big events
- When riding new terrain or in a different climate
- After weight or bike fit changes
- Whenever pressure feels "off" or handling changes
- Before any ride – especially when conditions change

### Understanding the Results

You'll receive **separate front** and **rear pressures** based on weight distribution

**Lower pressures** improve comfort and grip on rough or loose terrain

**Higher pressures** increase efficiency on smoother surfaces

The calculator helps you identify the **"breakpoint pressure"** – the point beyond which performance begins to decline due to vibration losses or excess rolling resistance

Use the numbers as a **starting point** & adjust slightly for ride feel or race-day conditions

### Common Mistakes to Avoid

**Relying on printed sidewall pressure** instead of measured setup

**Overinflating** to avoid flats (which can reduce grip and comfort)

**Forgetting to adjust** for rider weight, added gear, or terrain

**Trusting your pump gauge** without verifying accuracy

**Not re-checking pressure** after major gear or climate changes

### SILCA Tools That Support Precision Tire Pressure

**SuperPista Digital Floor Pump** – Industry-leading accuracy with high-volume output

**Elettrico Ultimate & Micro Mini Pumps** – Compact electric pumps with digital precision and preset functionality

**Tattico & Gravelero Pumps** – Durable hand pumps with accurate gauges, ideal for mobile pressure control

**Ultimate Tubeless Sealant**, tire inserts, & accessories – Built to support modern low-pressure setups