

VARIABLE ANGLE STEM



Owner's Manual



FELT THANKS YOU FOR YOUR PURCHASE. SOON YOU WILL THANK YOUR SELF.

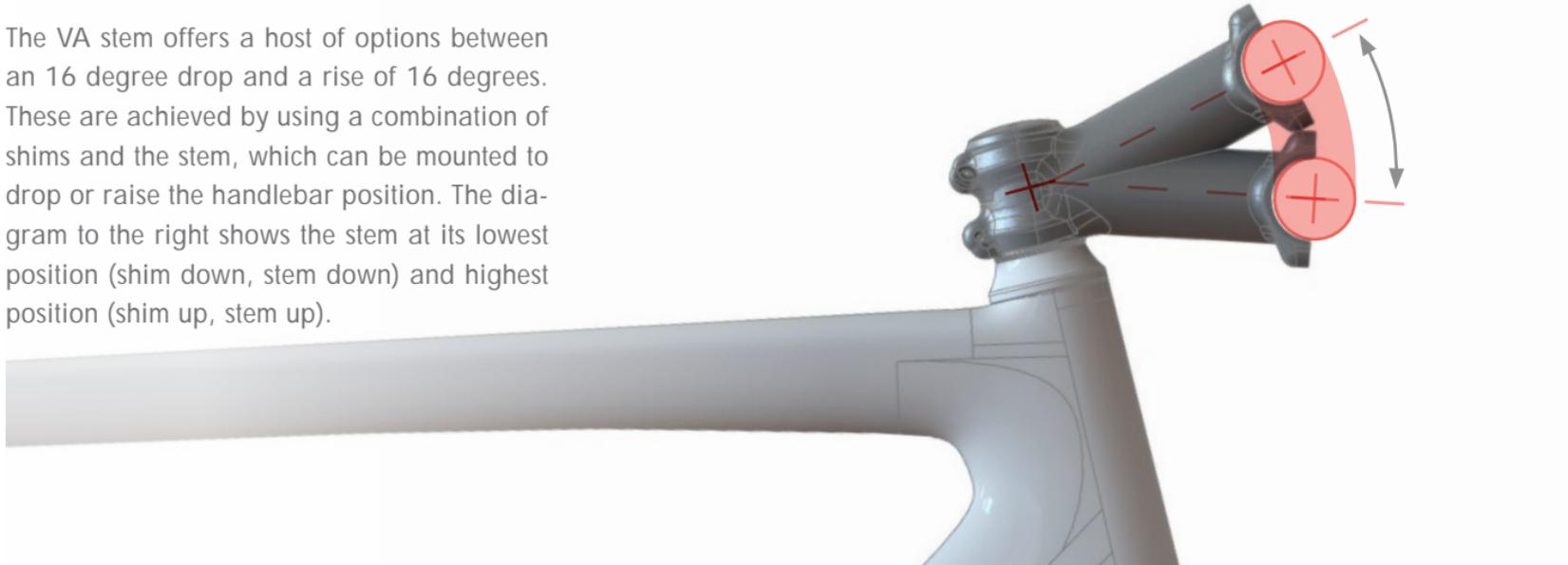
Any serious cyclist will tell you that fit is among the most important factors when it comes to maximizing performance potential. A proper fit on the bike means that the rider's body can work efficiently preserving energy, allowing muscles to move safely, and keeping the rider in the most comfortable and natural position as possible. Recognizing the importance of fit, Felt offers the Variable Angle adjustable stem (VA stem) which is offered in various lengths and can be configured at 6 angles to achieve the fit you need.



THE IMPORTANCE OF FIT

The VA stem offers a host of options between an 16 degree drop and a rise of 16 degrees. These are achieved by using a combination of shims and the stem, which can be mounted to drop or raise the handlebar position. The diagram to the right shows the stem at its lowest position (shim down, stem down) and highest position (shim up, stem up).

VA stem has 6 angle settings: -16, -12, -8, +8, +12, or +16



INSERT SHIM & CHECK THE RESULTING RISE OR DROP SHOWN IN STEM CUT OUT.

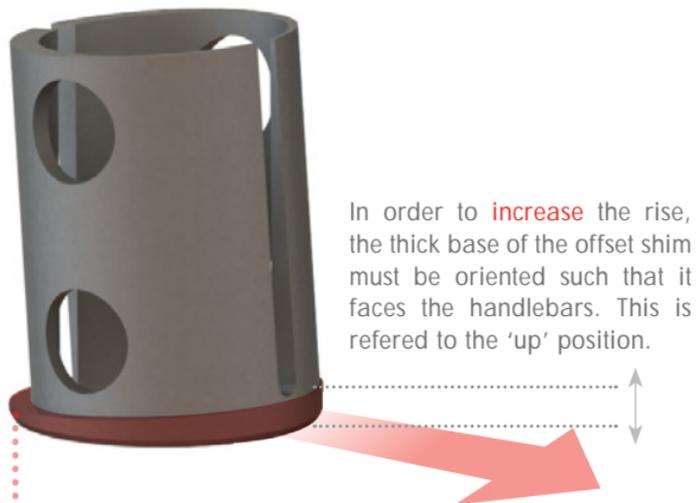
DETERMINING RISE OR DROP

Looking at the steer tube clamp on the stem, one can see a cutout that shows the angle of rise or drop in a given configuration. The number displayed can be either: -16, -12, -8, +8, +12, or +16.

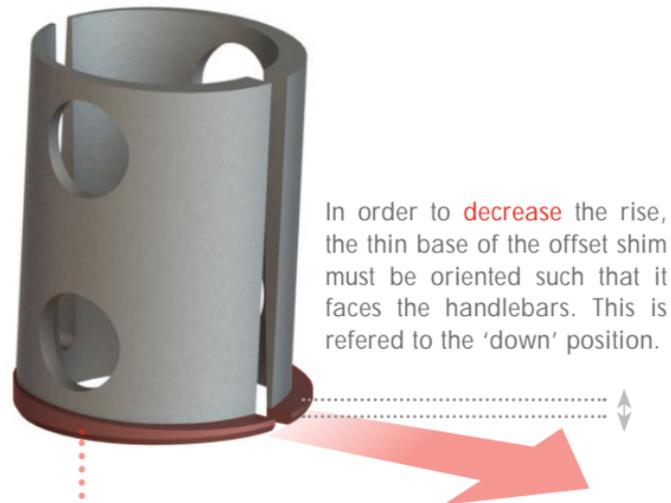


USING THE OFFSET SHIM

The stem has a 12 degree rise or drop when used with the neutral shim. To add or subtract 4 degrees to the current stem position, replace the neutral shim with the offset shim. The offset shim can be used to 'add' or 'subtract' angles of rise based upon its orientation.



In order to **increase** the rise, the thick base of the offset shim must be oriented such that it faces the handlebars. This is referred to the 'up' position.



In order to **decrease** the rise, the thin base of the offset shim must be oriented such that it faces the handlebars. This is referred to the 'down' position.

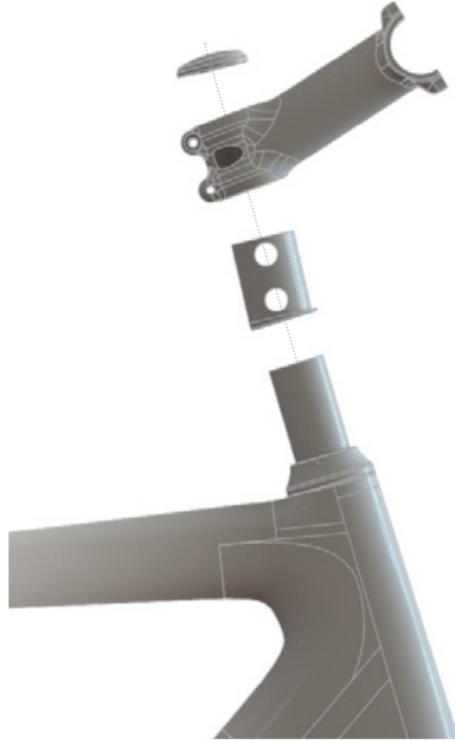
• Shoulder on shim MUST ALWAYS face down-ward (nearest to the headset) •

SAMPLE ASSMEBLY (STEM UP, SHIM DOWN)

PROPER ASSEMBLY

Once the rider has determined his or her desired rise or drop, proper assembly is required to ensure safety.

*To determine top cap orientation, note how the shim was used. A shim placed in the down position requires the thicker end of top cap to face foreword (towards the handle bar). The top cap faces the opposite direction if shim is in the down position.



First. Insert the appropriate shim in the up or down position

Next. Slide stem down over the shim, up to achieve rise, down for drop

Last. Determine top cap orientation*, place on top and thread included preload bolt

PRACTICAL.
SIMPLE.



THE VA STEM SHOWN ON A Z2



EFFECTIVE.
INTUITIVE.

Finally, be sure to tighten the top cap with the provided preload bolt, tightening the assembly, until there is no slack in the headset. Once the preload bolt is tightened, the stem bolts can also be tightened to spec.

Limited Warranty: Stems

Subject to the terms, conditions and limitations set forth below, Felt Devox products are guaranteed against defects in materials and workmanship for one year from date of purchase from an authorized Felt Dealer. This warranty applies only to the original owner of Felt products and is not transferable to subsequent owners. This warranty does not cover a cracked stem or other damage due to crashes or other similar impacts. Alloy stems have no implied lifespan due to the many variables that affect them, including the amount and type of use, as well as other conditions. It is the owner's responsibility to inspect his/her Felt products and to have regular inspections conducted by a technician at an authorized Felt Dealer to detect any damage that may have occurred during normal use and immediately after a crash or other impact even if there is no visible damage.

Limited Warranty Service: To obtain service under this warranty, the original purchaser must present the product along with the original, dated proof of purchase to an authorized Felt Dealer.

Limit of Warranty: During the duration of this warranty, Felt Bicycles, LLC, will—at its sole discretion—either repair or replace any Felt product deemed by Felt to be defective. All Felt products should be regularly inspected by a technician at an authorized Felt Dealer for indications of potential failures. These are important safety checks and may help prevent accidents, bodily injury to the rider, and shortened product life cycles of Felt products.

Not Covered Under Limited Warranty:

- Normal wear and tear.
- Any product improperly installed, assembled or maintained.
- Any product that Felt determines has been modified or used with neglect to maintenance.
- Any product used for stunt riding or similar activities, racing, commercial purposes or in any other manner for which they were not designed.
- Damage, failure or loss resulting from causes other than manufacturing defects. This may include but is not limited to: theft, nonstandard or unapproved use, rider error, accident, abuse, neglect, or failure to follow applicable instructions or warnings.
- Finish blemishes or damage due to exposure to the weather or to a chemical or other similar environment.
- Labor costs associated with servicing, repairing or replacing the product.

Felt Bicycles, LLC, makes no other warranties express or implied by operation of law or otherwise, including the warranties of merchantability and fitness for a particular purpose, which are limited in duration to those of the express warranties stated herein. Felt Bicycles, LLC, shall not be liable or responsible for direct, incidental or consequential damages including but not limited to damages for personal injury, property damage or economic losses, whether based on contract, warranty, negligence, product liability or any other theory. Some states do not allow the exclusion or limitation of damages or how long an implied warranty lasts so the above limitation/exclusion may not apply to you.





Thank you for your purchase. Make sure to see that it is properly installed and well-maintained. Felt Racing LLC.