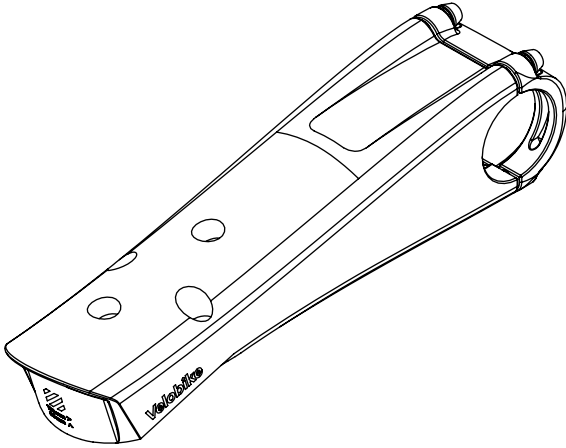


# Velobike

## Altias Stem — Argon18 Electron Pro RIO & TKO



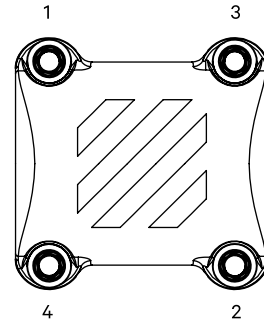
### This document relates to the following Stems:

- SKU: VB-SLB-A18-12030
- SKU: VB-SLB-A18-12060
- SKU: VB-SLB-A18-12090
- SKU: VB-SLB-A18-13030
- SKU: VB-SLB-A18-13060
- SKU: VB-SLB-A18-13090
- SKU: VB-SLB-A18-14030
- SKU: VB-SLB-A18-14060
- SKU: VB-SLB-A18-14090
- SKU: VB-SLB-A18-15030
- SKU: VB-SLB-A18-15060
- SKU: VB-SLB-A18-15090
- SKU: VB-SLB-A18-16030
- SKU: VB-SLB-A18-16060
- SKU: VB-SLB-A18-16090
- SKU: VB-SLB-A18-17030
- SKU: VB-SLB-A18-17060
- SKU: VB-SLB-A18-17090
- SKU: VB-SLB-A18-18030
- SKU: VB-SLB-A18-18060
- SKU: VB-SLB-A18-18090
- SKU: VB-SLB-A18-19030
- SKU: VB-SLB-A18-19060
- SKU: VB-SLB-A18-19090

### STEM SPECIFICATIONS:

- Precision CNC Machined
- 7075-T6 Aluminium
- Hard Anodized
- 31.8mm bar clamp diameter
- 49mm bar clamp width
- ISO certified to 2x forces

### INSTALLATION (FACEPLATE):



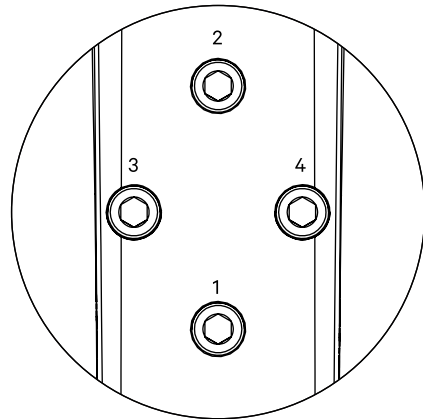
Tighten screws in a cross pattern i.e.

1. Top left
2. Bottom right
3. Top right
4. Bottom left

### Torque Specifications:

5Nm (maximum) on faceplate screws. Refer to handlebar clamping specification and tighten to the lowest value.

### INSTALLATION (FORK):



Use supplied M6 x 9.9 x 1mm washers underneath the stem mounting screws.

Tighten screws in a cross pattern i.e.

1. Rear
2. Front
3. Left
4. Right

### Torque Specifications:

- 7Nm

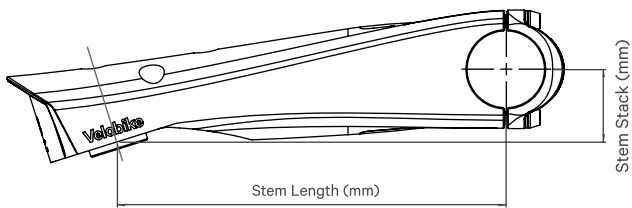
*Recommended to use copper grease on all threaded interfaces (copper grease not supplied). Routinely check screws for correct torque. Loosened screws may lead to equipment damage.*

# Velobike

## Altias Stem — Argon18 Electron Pro RIO & TKO

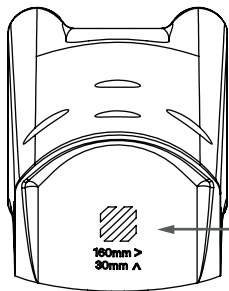
### STEM SIZES

The Velobike Altias Argon18 stems are measured slightly differently to your standard stem, due to consistency in head tubes on both the Argon18 Electron Pro RIO and TKO frame-sets across all sizes. The stems are measured in a horizontal length and a vertical stack rather than the traditional length and angle. This measurement system allows for greater accuracy in bike fit dimensions.



**Length:** Length is measured parallel to the ground plane - with the origin at the top of the fork mounting surface (through the steering axis) to the centre of the handlebar clamp.

**Stack:** Stack is measured perpendicular to the ground plane - with the origin at the top of the fork mounting surface (through the steering axis) to the centre of the handlebar clamp. Two stack sizes are currently available (30mm and 60mm).



### STEM WEIGHTS

Velobike Altias Stem — Argon18 Electron Pro RIO & TKO		
Stem Length (mm)	Stem Stack (mm)	Weight (g) (+/-3%)
120	30	262
	60	278
	90	
130	30	268
	60	284
	90	
140	30	274
	60	290
	90	328

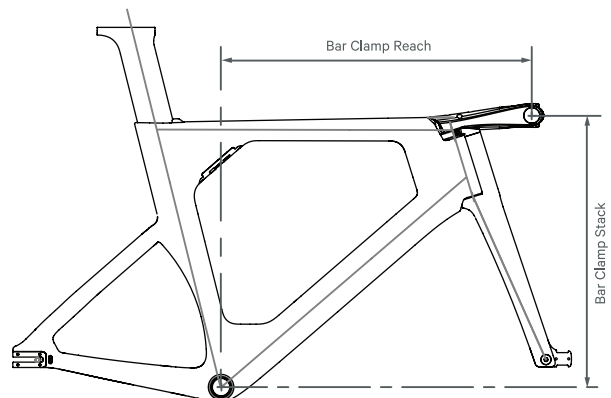
150	30	280
	60	296
	90	334
160	30	286
	60	302
	90	342
170	30	292
	60	308
	90	345
180	30	298
	60	314
	90	350
190	30	304
	60	320
	90	355

### BAR CLAMP GEOMETRY AND POSITIONING

The bar clamp position can be accurately calculated as the Argon18 Electron Pro RIO and TKO frame-sets maintain a consistent relationship across all frame sizes.

As most bike fitters use the bottom bracket as the origin for all their dimensions, we have opted for this location to communicate the bar clamp positioning across the various combinations of frame-set and stem sizes available.

The diagram below illustrates the **Bar Clamp Reach** and **Bar Clamp Stack** values in relation to the bottom bracket. These values can be used to cross reference your current handlebar clamp positioning to select the correct Velobike Argon18 Altias Stem.



Bar Clamp Reach and Stack tables on the following page

# Velobike

## Altias Stem — Argon18 Electron Pro RIO & TKO

Bar Clamp Reach (mm)				
Stem Length (mm)	Argon18 Electron Pro TKO			
	XS	S	M	L
120	523	538	558	582
130	533	548	568	592
140	543	558	578	602
150	553	568	588	612
160	563	578	598	622
170	573	588	608	632
180	583	598	618	642
190	593	608	628	652

Bar Clamp Stack (mm)				
Stem Stack (mm)	Argon18 Electron Pro TKO			
	XS	S	M	L
30	473	512	527	542
60	503	542	557	572
90	533	572	587	602

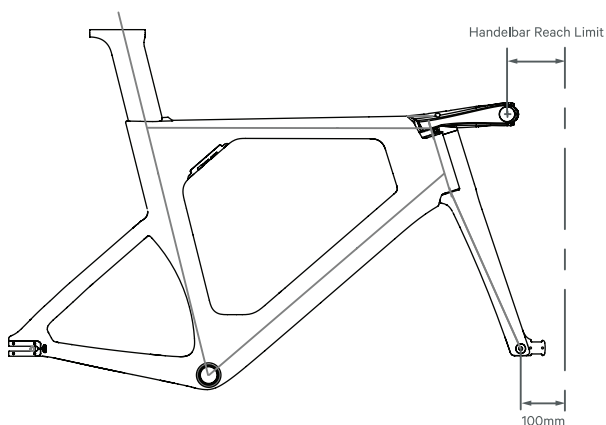
Note: allow for +/-1mm in the above dimensions to account for frame-set tolerances and calculation rounding.

### HANDLEBAR REACH LIMIT

Given the consistency across all the Argon18 Electron Pro frame-sets and stem sizes, calculating the bar reach limit is easily achieved.

The below table illustrates how much reach remains from the stem clamp out to the 100mm UCI reach limit for the leading edge of your handlebars

Please note that the reach dimension of the handlebar can change from the advertised dimension based on the angle, manufacturing tolerances and additions such as bar tape etc. Always manually measure the reach of your handlebars in your preferred position and setup for the most accurate estimation.

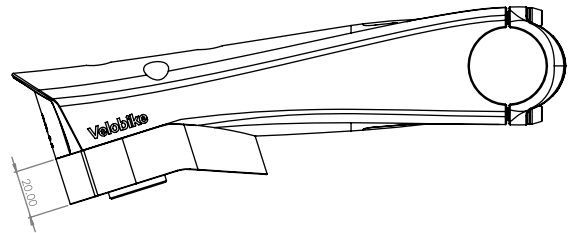


Handlebar Reach Limit (Clamp to leading edge) (mm)				
Stem Length (mm)	Argon18 Electron Pro TKO			
	XS	S	M	L
120	153	159	161	166
130	143	149	151	156
140	133	139	141	146
150	123	129	131	136
160	113	119	121	126
170	103	109	111	116
180	93	99	101	106
190	83	89	91	96

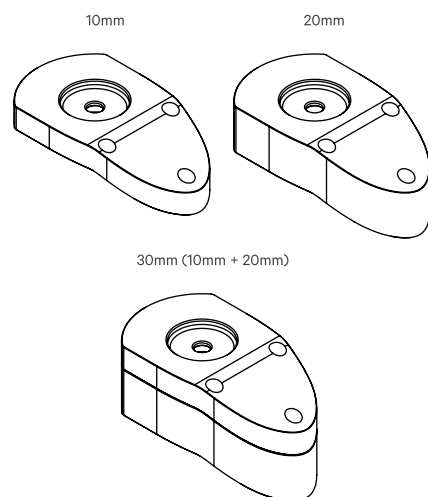
Note: allow for +/-1mm in the above dimensions to account for frame-set tolerances and calculation rounding.

### STEM STACK SPACERS

Stem stack spacers are available in 10mm increments to further dial in your handlebar position.



A maximum of 30mm of spacers can be used under the stem to increase stem stack. Stem spacer sets are available via [www.velobike.co.nz](http://www.velobike.co.nz)



Reach and Stack implications with spacers		
10mm spacer:	-3mm from Bar Clamp Reach	+10mm to Bar Clamp Stack
20mm spacer:	-6mm from Bar Clamp Reach	+20mm to Bar Clamp Stack
30mm spacer:	-9mm from Bar Clamp Reach	+30mm to Bar Clamp Stack

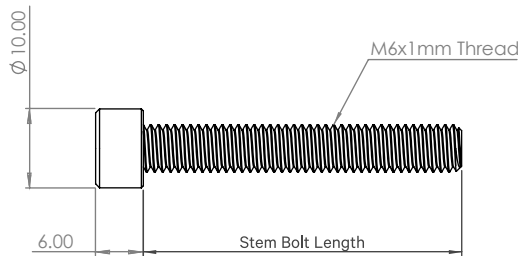
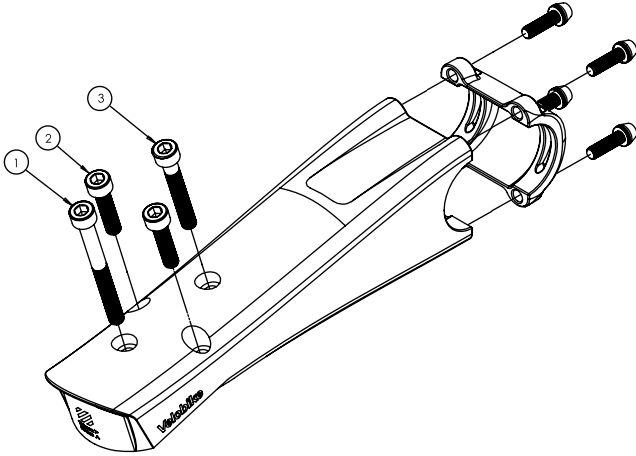
# Velobike

## Altias Stem — Argon18 Electron Pro RIO & TKO

### STEM BOLT LENGTHS

The Argon18 Electron Pro RIO and TKO requires different bolt sizes for each mounting point. Different length screws will be required depending on the stem size and spacers used.

M6 x 9.9 x 1mm washers (supplied with the stems) are required under the heads of the screws.



Stem Length (mm)	Stem Stack (mm)	Spacer (mm)	Stem Bolt Length (mm)		
			1 (Rear)	2 (Middle x2)	3 (Front)
All	30	0	60	20	35
		10	70	30	45
		20	80	40	55
		30	90	50	65
	60	0	60	25	45
		10	70	35	55
		20	80	45	65
		30	90	55	75
	90	0	60	35	55
		10	70	45	65
		20	80	55	75
		30	90	65	85