

World Cup Performance for Every Size Rider

Get big-wheel performance and World Cup speed in an even more nimble package with the LES 27.5". Our compact frame design takes lightweight hardtail performance to a new level and opens up the advantages of the big wheel category to a much wider range of riders sizes than ever before.

New School XC Race / Trail Geometry

The LES 27.5's has been described as having almost BMX-like handling, capable of dissecting the most technical racecourses with scalpel like precision – making technical descents, rollers, berms and jumps more fun than ever before on a racing hardtail. The magic combination of Pivot's ultra-lightweight, ride-tuned, composite chassis, 27.5" wheels, progressive geometry, and ultra-short 16.77"(42.6mm) chainstays makes for a bike that is as equally comfortable taking the XC or Endurance race win as it is shredding jump filled singletrack.

Big Wheel Performance for Every Size Rider

For riders from 4'10" and up, the LES 27.5 is a revelation of optimized geometry, stand-over clearance, weight, and ride tuning. By including sizes Small and Extra-Small in the range, we've got a LES model to properly fit every size rider who seeks bigger wheel performance. It's an added bonus that the more compact frame design of the LES 27.5 makes it easy to build a sub-20lb race bike – an advantage for everyone, but even more important for small riders seeking the best power to weight ratio. The LES 27.5 is a truly ground breaking design that we are excited to bring to a whole new group of Pivot riders.

Carbon Frame Design

Pivot's exclusive hollow box, high-compression internal mandrel technology allows for greater compaction and smoother internal walls resulting in a lighter, stronger, highly optimized, ride tuned frame design. This technology allows the frame extremely lightweight while also having a really balanced feel with a great combination of stiffness and ride quality. Full internal shift cable routing with under bottom bracket access port design guarantees hassle free installation and protects the cables from contamination. The whole system is easily user serviceable and easy to route, superior to most internal designs.

All the Right Details

The LES is easily 2x and 1x gearing compatible, via a direct mount front derailleur. Riders of the XS will be happy to know that the XS frame fits a large waterbottle in the front triangle, with sizes S-L having 2 water bottle mounts.

Build Kits And Assembly

The LES 27.5 is available as a complete bike with a wide range of component level options or as a frame. We've carefully selected every part and only spec components we would ride ourselves.

We take quality and workmanship seriously at Pivot, and know that the details are what make a great rider experience. Every Pivot Cycles frame undergoes a 28 step assembly and quality control check to ensure that every ride on the LES 27.5" meets your high expectations.

2017 LES 27.5 Features

- Ultralight ride-tuned carbon frame featuring leading edge carbon fiber materials and Pivot's proprietary hollow core internal molding technology
- 27.5" wheel compatible
- New-school racing geometry, ridden to victory at Sea Otter and other professional XC and short track races.
- Extremely short 16.77" chainstays
- Designed to work with forks from 100-120mm in travel
- Full internal shift cable routing with under bottom bracket access port design for hassle free installation
- 1x and 2x gearing compatible
- Available in sizes XS, S, M, L for riders between 4'10" and 6'2"



Frequently Asked Questions

Which size bike should I purchase?

To ensure the best sizing, we recommend that you visit your local Pivot dealer to get a professional fit and refer to our geometry chart to check your measurements. However, we can provide a rough guideline:

X-Small: 4'10" – 5'5"

Small: 5'5" – 5'9"

Medium: 5'9" – 5'11"

Large: 5'11" – 6'2"

What bottom bracket is used on the LES 275 and which cranks are compatible?

Pivot is the first frame manufacturer to feature the 92mm wide bottom bracket shell standard, originally developed in conjunction with Shimano XTR. With the press fit 92 system, there are no external washers or threads in the shell. The bearings are housed in light composite resin cups with a full sealed sleeve to keep out the elements. This design allows for easy crank installation, with no frame facing or special spacers required. Chain line is perfectly optimized and as an added advantage, the bearings are extremely easy to replace. Another bonus is that the XTR version includes a 3 year warranty from Shimano. The system works with Shimano, FSA and Race Face cranks (all compatible with the Shimano cup design) as well as the SRAM GXP system for which SRAM offers both standard and ceramic versions. In addition, Enduro and several other aftermarket companies offer both replacement bottom brackets and bearings to support every major crank brand.

Are there any other bottom brackets that will work with the LES 275? Can you upgrade to ceramic bearings?

We use a Press Fit 92 BB (sometimes called PF92 or BB92) design. Almost every crank and BB manufacturer offers a bottom bracket that is compatible with the Press Fit 92 system.

What is the narrowest Q factor crank that the LES 275 will accept?

The LES 275 will accept cranks with a Q factor measurement as low as 156mm (Such as the narrower option in the SRAM XX1 or the new XTR Race crank). Of course, anything greater than 156mm will work as well. Most standard MTB Q factor measurements are at 163mm.

What hub/wheel spacing does the LES 27.5 use?

The LES 27.5 uses the 142mm X 12mm hub/wheel spacing. Our custom 12mm DT Swiss axle is included with the frame. The axle is based off of Shimano's 12mm through axle specifications for length and thread pitch so if you were ever to lose your axle, a Shimano or Shimano compatible axle will work properly as well.

What is the thread pitch on the rear axle?

Pivot uses a 1.5 thread pitch on the rear thru axle. You can order one through our online store here:

http://www.pivotcycles.com/store/index.php?route=product/product&path=60&product_id=133

What size seatpost does the LES 275 use?

The LES 275 frame uses a 30.9mm seatpost.

What size seat clamp does the LES 275 use?

The LES 275 frame uses a 34.9mm or 35mm (as some manufacturers call it) seatpost clamp.

Can I use a dropper post with this frame?

Yes, although there is not dropper specific routing on this model. However, any dropper post with external routing can be used on this frame.

What front derailleurs does the LES use?

The LES 275 uses a DM (direct mount) style front derailleur. You can use a SRAM direct mount top pull X-9 or XO version for any 2X system. The SRAM top pull is best if you are running a 10 speed rear cassette and a large front chainring smaller than a 38 tooth. If you are running a 2X or 3X Shimano system with 10 speed rear cassette then use a Shimano direct mount FD. You will need to look at Shimano's technical specifications in order to source the correct Shimano top pull DM front derailleur for the front chainring combination you are using.

What headset do I need for the LES 275?

The LES 275 uses a ZS (zero stack) 44mm top and (zero stack) 56mm bottom, or a Chris King Inset 2.

How wide of a tire can I run on the LES 275?

We use the Maxxis Ikon 2.2 in our complete bike builds. However, the LES 275 is designed to easily accept most 2.3 tires in the market. For instance, a Maxxis High-Roller II 2.3 fits with clearance. For 2.35 tires in the market, some may fit, but rim width and tire manufacture sizing call outs and tire inconsistency can result in huge difference among both tire brands and individual tires. For anything beyond a 2.3, we suggest you check the fit with your chosen rim and tire combination to make sure it has proper clearance before riding.

How large of a rotor will fit on the LES 275?

The LES 275 will clear either a 160mm or 180mm rotor.

What type of rear brake adapter do I need?

No brake adapter is needed for a 160mm rotor. However, many manufacturers make adapters for larger rotor sizes, in which case you would need a 160mm direct mount/ post to post adapter.

What travel fork can I use on my LES 275?

The LES was designed for either a 100mm or 120mm fork. We use a 100mm fork in all our complete bike builds (although for special orders you can request a 120mm). The maximum travel length that can be used on the LES 275 is 120mm travel.

What is the fork offset on the LES 275?

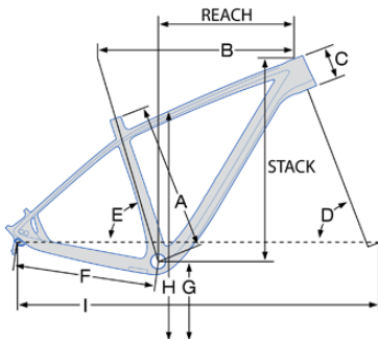
We use a Fox 100mm, 32 forks with a 44mm offset in all our complete bike builds. The 120mm travel special order option also features 44mm offset.

What are the torque specs?

A detailed PDF of the torque specs can be found under the "Tech Specs" tab.

LES 27.5

Geometry Chart



LES 27.5 100mm Travel Fork

	XS	S	M	L
A Seat Tube Length (C-T)	14.50	16.00	17.50	19.00
B Top Tube Length	21.70	22.80	23.60	24.36
C Head Tube Length	3.50	4.00	4.25	4.72
D Head Tube Angle	68.75°	69.25°	69.25°	69.50°
E Seat Tube Angle	73.80°	73.00°	72.50°	72.50°
F Chain Stay Length	16.77	16.77	16.77	16.77
G Bottom Bracket Height	11.88	11.88	11.88	11.88
H Standover Height	25.50	27.00	28.50	28.75
I Wheelbase	41.72	42.30	42.89	43.56
Stack	22.57	23.09	23.32	23.81
Reach	15.13	15.74	16.25	16.84

Values in inches

CM

LES 27.5 100mm Travel Fork

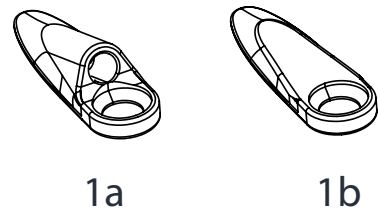
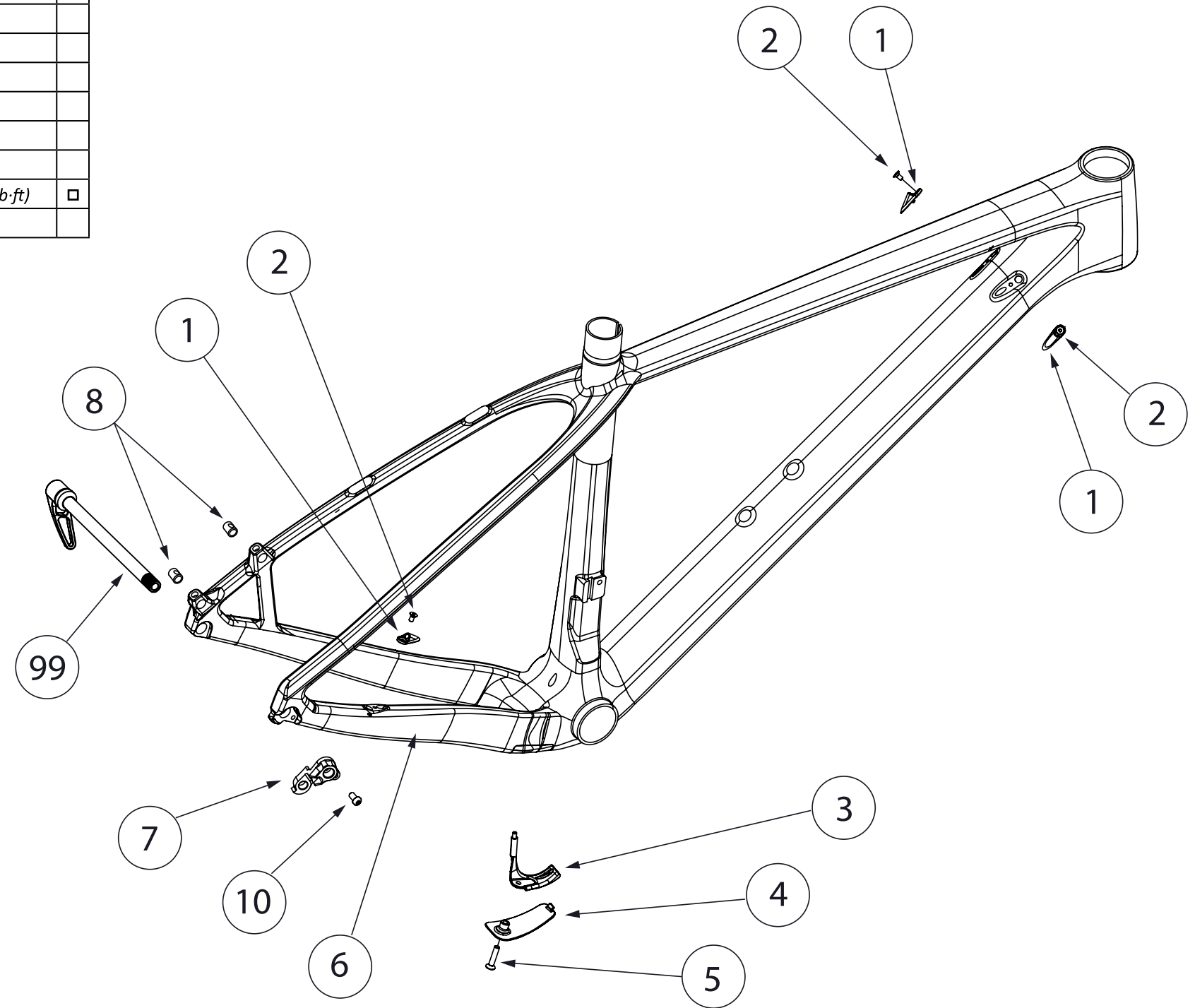
	XS	S	M	L
A Seat Tube Length (C-T)	36.83	40.64	44.45	48.26
B Top Tube Length	55.12	57.91	59.94	61.87
C Head Tube Length	8.89	10.16	10.79	11.99
D Head Tube Angle	68.75°	69.25°	69.25°	69.50°
E Seat Tube Angle	73.80°	73.00°	72.50°	72.50°
F Chain Stay Length	42.60	42.60	42.60	42.60
G Bottom Bracket Height	30.18	30.18	30.18	30.18
H Standover Height	64.77	68.58	72.39	73.03
I Wheelbase	105.97	107.44	108.94	110.64
Stack	57.33	58.65	59.23	60.48
Reach	38.43	39.98	41.27	42.77

Values in centimeters

IN

LES 27.5

NUMBER	PART NAME	DESCRIPTION	Torque	*
1a	FP-GDE-MECH-FRM-V1	GUIDE MECHANICAL FRAME V1		
1b	FP-CVR-MECH-FRM-V3	COVER MECHANICAL FRAME V3		
2	FP-SCW-FLT-M4*10	SCREW FLAT 4X10		
3	FP-CVR-MECH-BB-V2	COVER MECHANICAL BOTTOM BRACKET VER2		
4	LES BB CABLE GUIDE COVER	LES BB CABLE GUIDE COVER		
5	FP-SCW-FLT-M5*14	SCREW FLAT 5X14		
6	FP-PRO-LES275-CS-V1-R1	LES 27.5 CARBON CS GUARD V1		
7	FP-RDH-TA-12MM-BLK-V1	REAR DERAILLEUR HANGER THROUGH AXLE 12MM BLACK V1		
8	FP-BRP-INS-6I	BRAKE POST INSERT		
10	FP-SCW-SCK-M5*10	SCREW SOCKET 5X10	7 Nm (5 lb-ft)	□
99	DT SWISS 142 RWS	DT SWISS 142 RWS		



* ○ = grease ● = anti-seize ◐ = anti-seize or grease □ = loctite 243

LES

27.5



LES is more (or LES)

The LES 27.5 is a truly exciting bike that we are excited to bring to a whole new legion of Pivot riders.



Getting your race ready LES under 20lbs will not be an issue. The biggest news is the small and additional X-small LES frame size that opens up the opportunity for shorter riders to get on properly fitting bikes with bigger wheels. Now you can own, ride and race the most highly optimized hardtail ever created with geometry, stand over clearance, weight, and ride tuning perfected for the smaller rider.

LES 27.5



CARBON TECHNOLOGY

Built from the inside, out.

We use a proprietary hollow core internal molding technology to create our Pivot carbon frames. This technology is extraordinary and sets the bar well above everything else that's out there. Other high-end brands utilize previous generation molding techniques, but we've taken the technology to the next level of development to produce a frame that is unmatched in nearly every conceivable category.

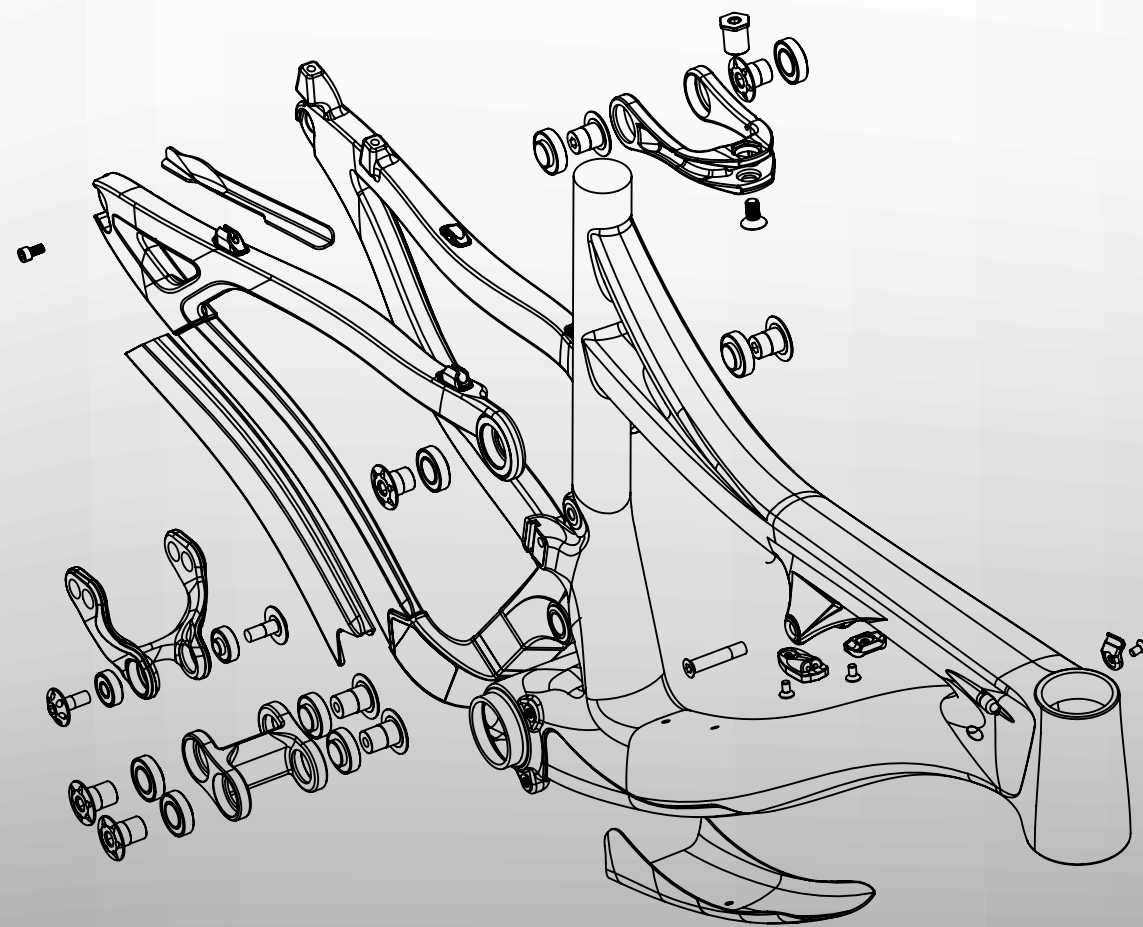
The quality of the frame that exits the mold is near perfection inside and out and requires little to no finish work prior to painting. It's a shame we have to paint them at all!





Traditional Methods

Other frames require hours of work after they come out of the molds filling the voids and imperfections with epoxy filler which not only adds weight but can also compromise strength and stiffness in critical areas. Our hollow core internal molding technology produces a much lighter and stiffer frame because there is less material required to fill imperfections. This also produces a better ride because an ultra precise and carbon layup can be optimized and tuned to provide the perfect feel without needing to worry about adding extra material.

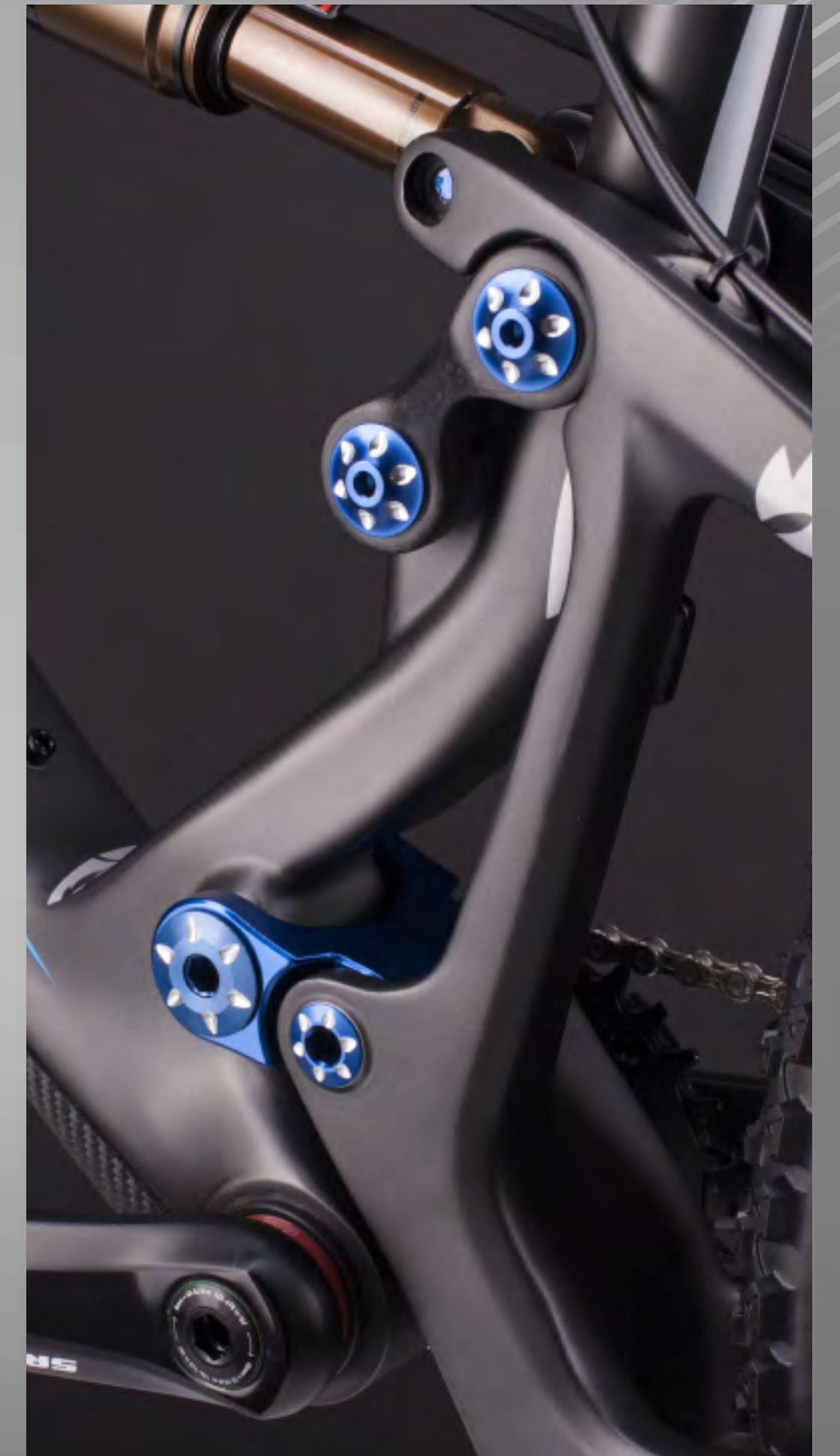


Both our full suspension and hardtail models require less material to achieve target stiffness and strength numbers - meaning a lighter frame with greater stiffness and much higher quality structures. All of this combines to produce a frame that goes above and beyond the engineering to create bikes that are much greater than the sum of their parts.

Pressure and control.

All carbon bikes are not created equal. A nice looking frame on the outside does not tell the story of what's going on inside. Without giving away too many secrets, we can tell you a little bit about how carbon frames are made and what sets Pivot's hollow core internal molding technology apart. Traditional molding is done with standard polybag bladders. Basically, plastic tubes (similar in material to a plastic zip-lock sandwich bag) are placed inside the frame and inflated with pressure while the carbon frame is in the mold and being heated. The pressure from the poly bags push the carbon into the mold creating pressure from the inside that results in the material following the form of the mold and creating the final shape of the carbon frame.

This is the way that the vast majority of carbon frames are made. It's a perfectly fine way to make carbon frames and there is nothing wrong with it. It is simply not a very precise process. Pressure may not be constant in all areas resulting in internal wrinkles and weak spots that require the manufactures to compensate by using more material in key areas. Some of the more advanced companies with lighter frames in the market go one step further and use pre-shaped latex bladders (the internal bladders are made to the shape of the actual internal structure) this method is better as it helps eliminate wrinkles, but there is still a possibility of inconsistent pressure in critical areas and it is much more difficult to control the lay-up on soft, flexible bladders.





CARBON TECHNOLOGY

Hollow core internal molding.

Pivot's hollow core internal molding process goes well beyond this by using hard internal forms for both lay-up and molding that eliminate the possibility of inconsistent pressures, providing the highest levels of compaction and extremely precise control over the entire structure.



The other key part of this is that **we also have greater control over the individual carbon layup that goes into each frame.** This is a true attention to detail item that sets the best apart from the rest. The “kitting” of composites is more on par with making a precision road fork lay-up or handlebar where tuning is critical to the ride and strength is paramount. It is not simply a matter of taking sheets of mid modulus composites and placing them at 45 degree angles in the mold like many other manufacturers.



CARBON TECHNOLOGY

How we got there.

A lot of testing goes into exactly which composites are needed in each location and of what type to optimize the frame. So, we know it makes for a fascinating discussion to throw out material names with super high modulus numbers, and to quote crazy high compaction pressures for marketing purposes. However, the real magic happens in product development and testing.

At Pivot, we are committed to taking the time, effort and high cost involved with developing the perfect lay-up structures, and using all the best materials available in just the right places, in order to develop a truly optimized frame, **with a stiffness to weight ratio and superior ride tuning that puts the competition to shame.**

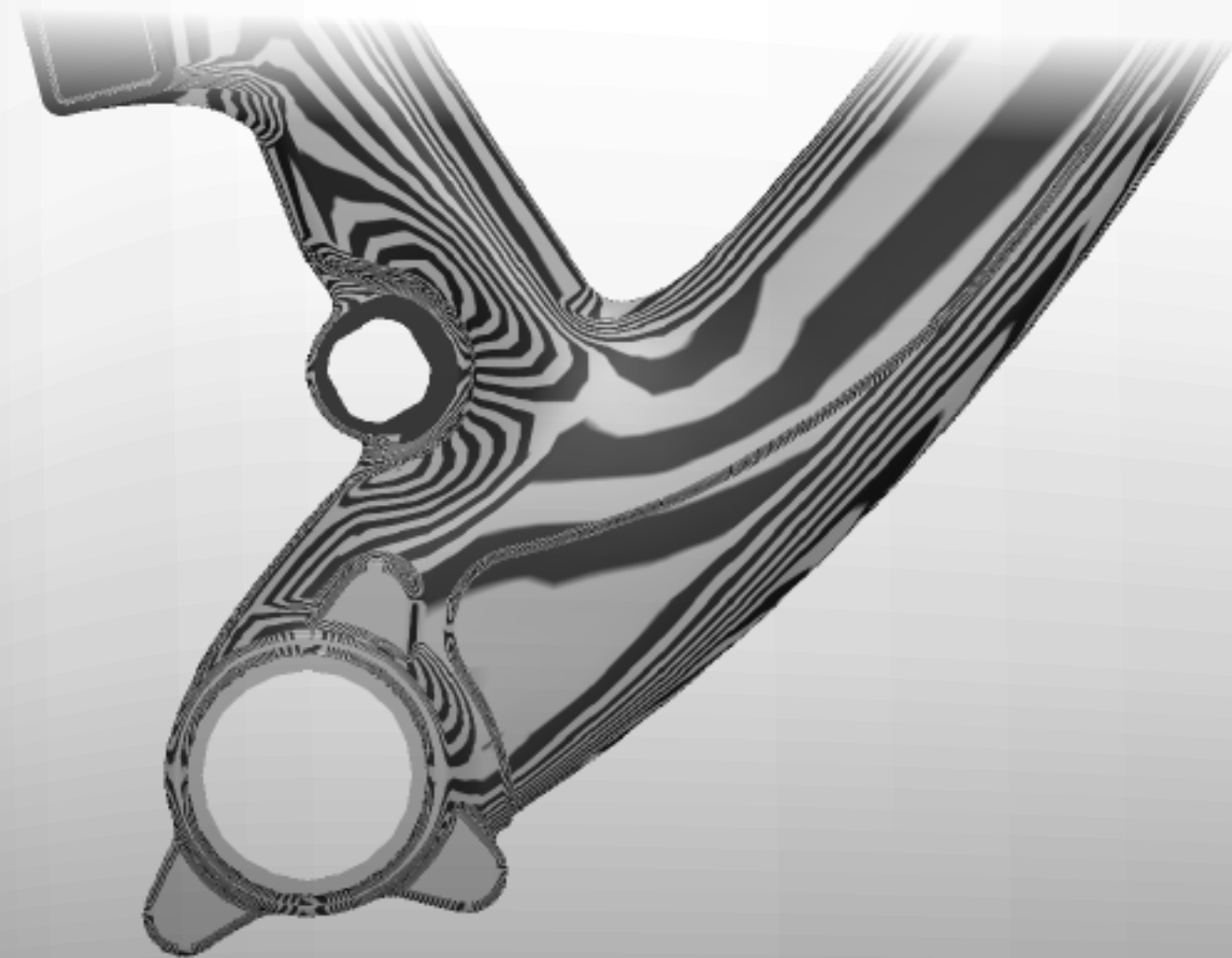




CARBON TECHNOLOGY

Real World Testing.

In the creation of Pivot's truly ground breaking line of composite frames, we didn't just rely on FEA programs or engineering data alone- we tested the frames in the real world with real riders. We built numerous versions of the frame, each with a slightly different lay-up schedule- producing more stiffness, less stiffness and ultimately the right stiffness. We changed the lay-up and the materials until we were happy with the frames stiffness and ride characteristics as much as the test data.

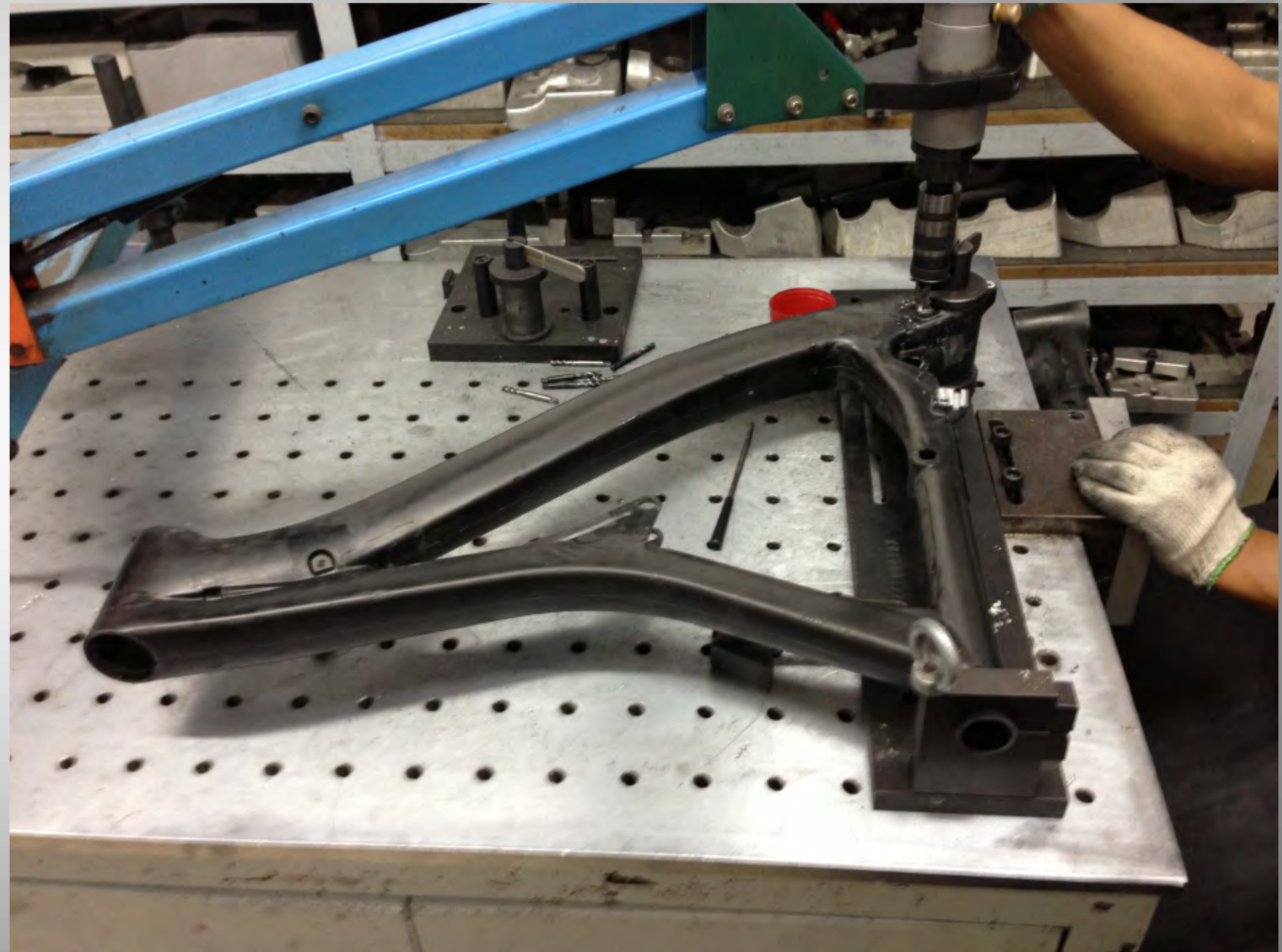




CARBON TECHNOLOGY

Crunching the numbers.

We do live by the test data! We spend a ton of time crunching the numbers and comparing them to those of the other premium brands. We test the competitor's products as a benchmark and go about developing a better frame. In the case of our suspension frames that means a superior stiffness to weight ratio with the highest strength standards in the sport. With our non-suspended models, we focus on achieving the maximum stiffness in the bottom bracket, head tube and rear triangle side to side so that all the riders power gets to the rear wheel. At the same time we develop the perfect lay-up structure that makes the frame both comfortable and lively.



What this means for the rider.

The end result is a frame that actually lives up to the words “laterally stiff, yet vertically compliant”. In the case of bikes like our Mach 5.7 and 429, our superior chassis stiffness has become a huge differentiator between us and the competition. Every magazine test report features comments regarding the precision and the immediate acceleration that occurs when getting on a Pivot carbon bike. When it comes to our LES model, these comments are also followed up with compliments on the bikes overall ride quality and light weight. Several testers have written that the LES is the most perfectly balanced hard tail mountain bike they have ever ridden. We know we have done our home work so that you can have a better bike when we get comments like that.





CARBON TECHNOLOGY

Additional Pivot Carbon Frame Technology

Along with the Hollow Box molding process, we use several other technologies to make Pivot bikes as light, stiff and reliable as possible.

Rubberized Leather Protection

Rubberized leather chainstay, inner seat stay, and down tube protectors for a quiet ride and higher impact resistance.

Tapered 1.5' Headtube

Wider head tube allows us to take full advantage of oversized tubes to create amazing stiffness to weight ratios while keeping the ride quality at what you expect from a Pivot.

Press Fit 92 Bottom Bracket

PF92 bottom bracket 92mm shell allows for wider pivots and better bearing support for increased frame strength and stiffness while maintaining better control over the chain-line. The PF92 design also means that our carbon frames are 100% molded carbon with no threaded metal bottom bracket inserts required.





CARBON TECHNOLOGY

Direct Mount Front Derailleur

Stiffer, lighter and more precise. Allows for ease of set up and perfect front shifting.

Oversized Bearings

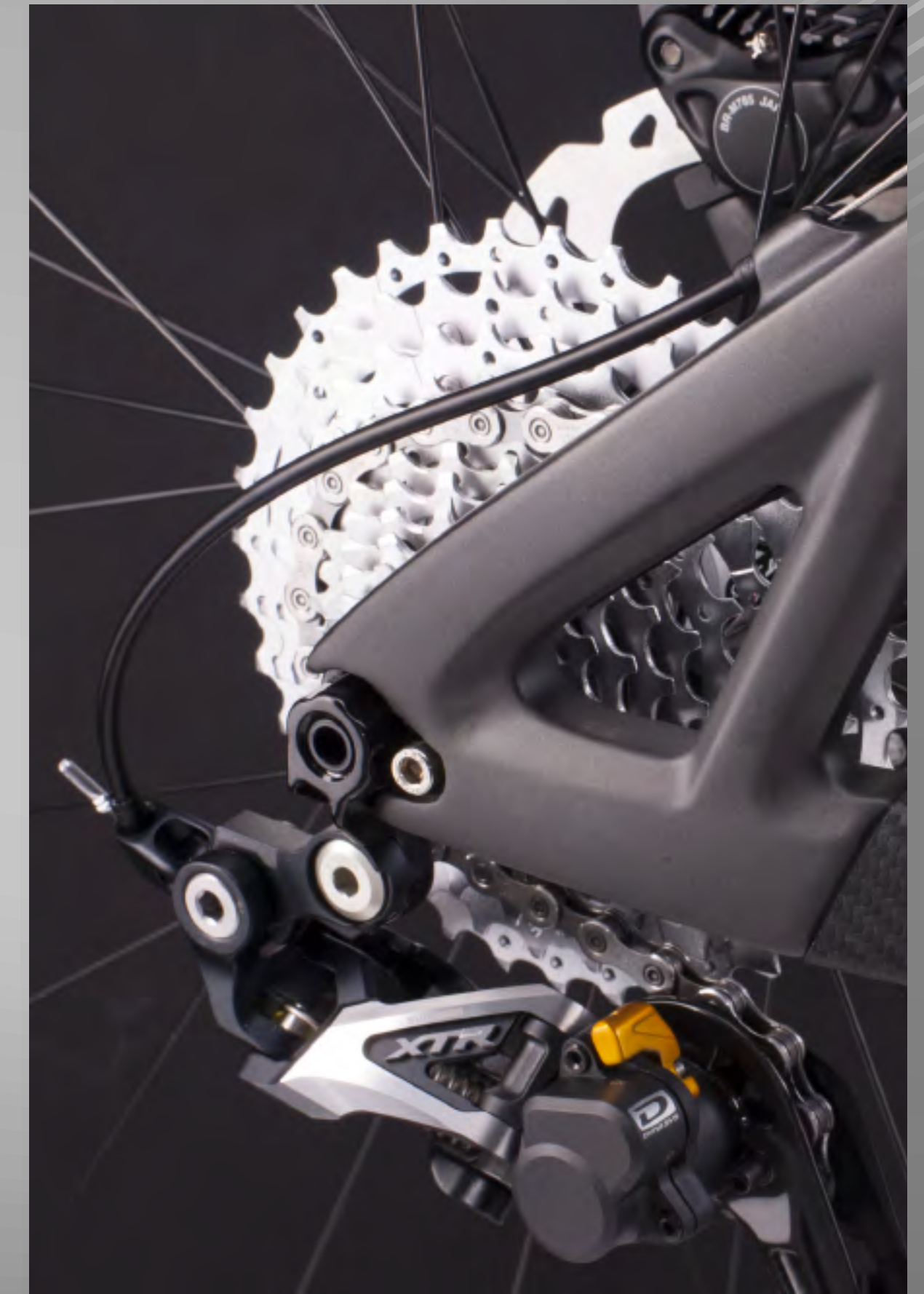
Oversized bearings all around and double row Enduro Max bearings in the dw-link.

142 X 12mm through axle design

142 X 12mm through axle design with forged 7075-T6 derailleur hanger and integrated axle nut adds even more stiffness to the carbon rear triangle.

Direct Mount rear brake posts

160mm bosses mount calipers directly to rear triangle resulting in higher levels of stiffness and lower overall system weight.





Pivot's exclusive **hollow box, high-compression internal molding** technology allows for greater compaction and **smoother internal walls** resulting in a lighter, stronger, highly optimized, ride tuned frame design. This technology allows the frame extremely lightweight while also having a really balanced feel with a great **combination of stiffness and ride quality.**



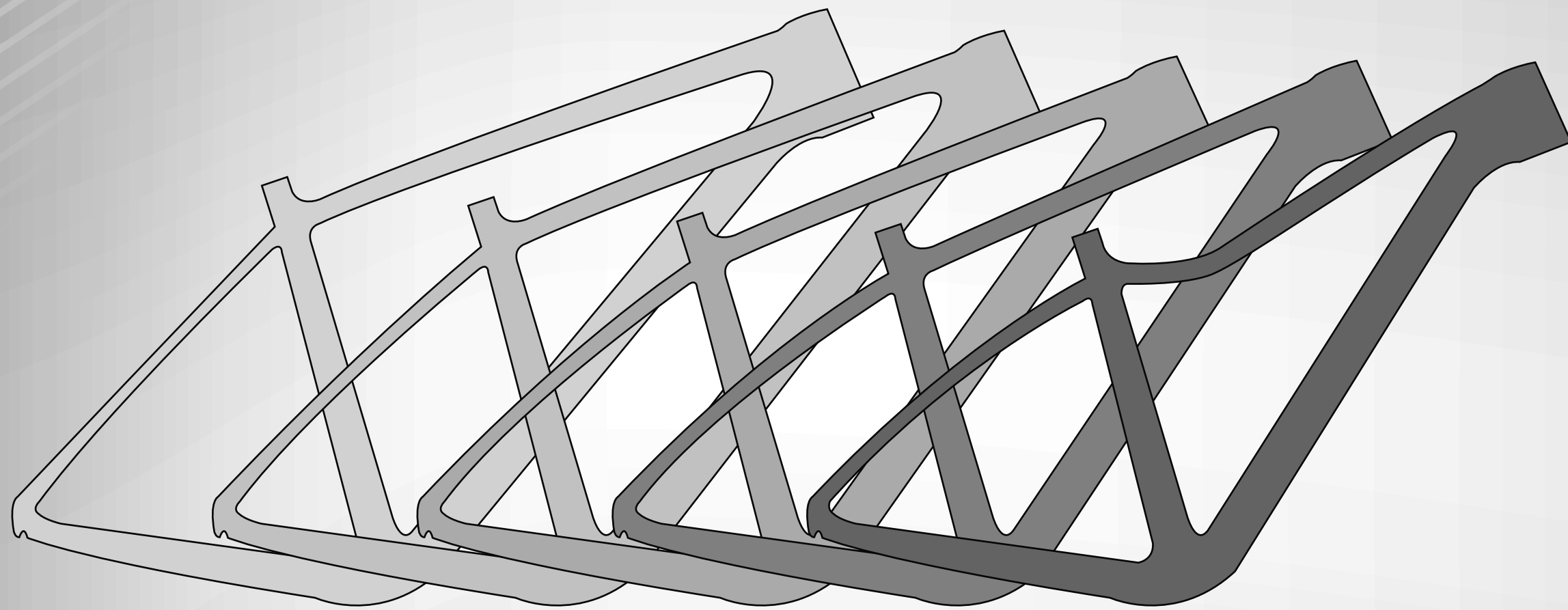
Full internal shift cable routing with under bottom bracket access port design for hassle free installation: The LES 27.5" features well thought out internal cable routing that protects the cables from contamination while also being very **user serviceable and easy to route**, which is something that cannot be said for most internal routed designs.





Dedicated geared **142mm X 12mm** through axle design,

Chainstay length and tire clearance: The LES features extremely short **426mm (16.77") chainstays**. This matches the shortest 26" chainstay lengths out there so riders have a tight handling, responsive bike along with the benefits of 27.5"



Small and X-Small frame sizes bring big wheels with **optimized fit, handling, and lighter weight** to smaller riders while offering the maneuverability and excitement provided by the 27.5" wheels to riders of all sizes.