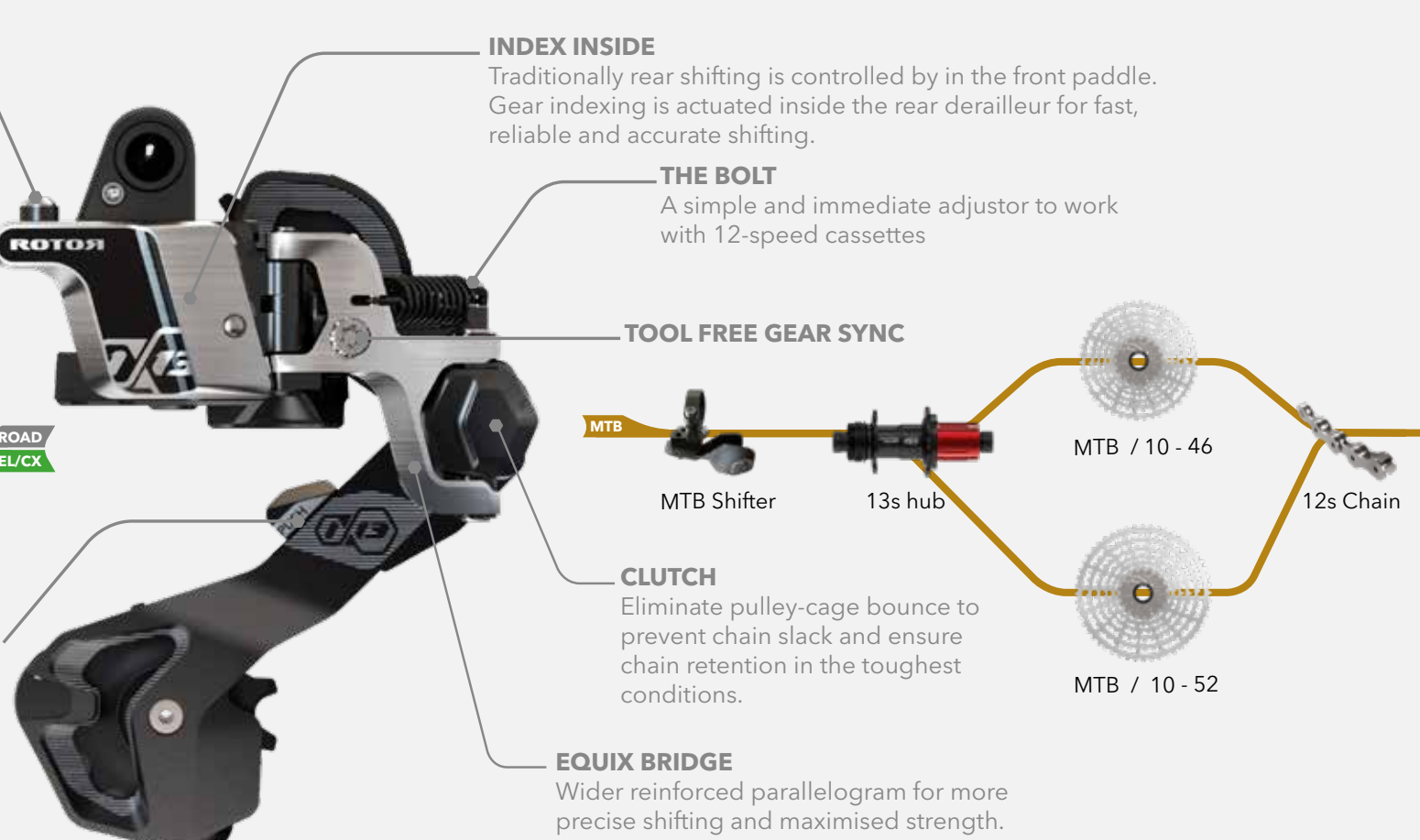
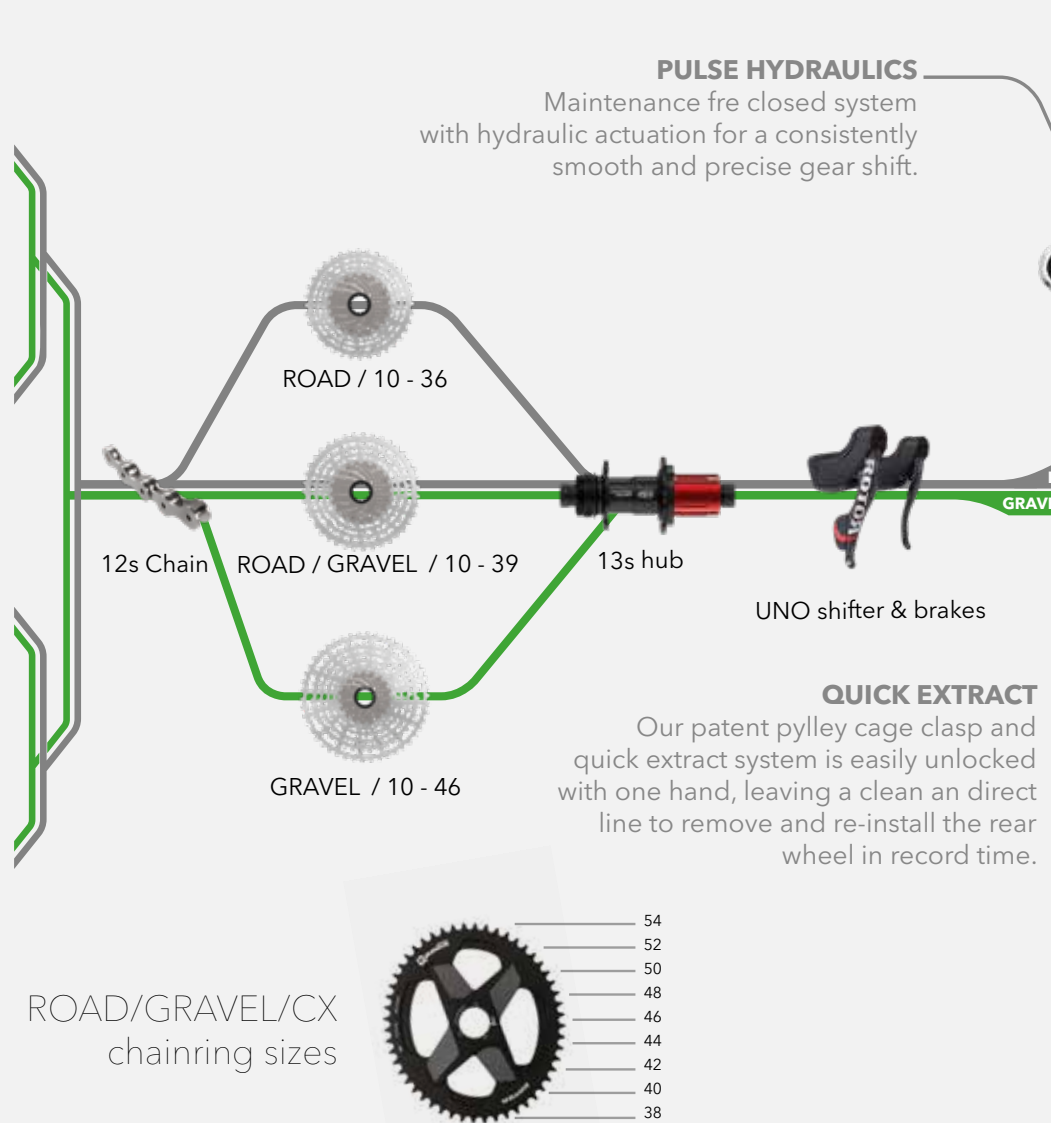




**ROTOR**

**YOUR WORLD IN ONE CHAINRING**

[www.rotorbike.com](http://www.rotorbike.com)



Cassette 13 SPEED  
World's first 13s Cassette.

**Shifting features.**  
Q RINGS applied expertise for optimised profiling of cassette teeth.

**Aluminium upper body.**  
Machine CNC'd from single block for lightweight precision.

**Strengthened steel lower body.**  
Maximum durability with low weight in one single piece.

**Lockring.**  
Proprietary locking for 10T compatibility with open standard freehub splines.

**Incredibly Lightweight.**  
Unified structure with minimum weight for high performance precision cassette.



Shifter



**Index Free Actuation.**  
No indexing mechanism in shifter for simplified, lightweight actuation.

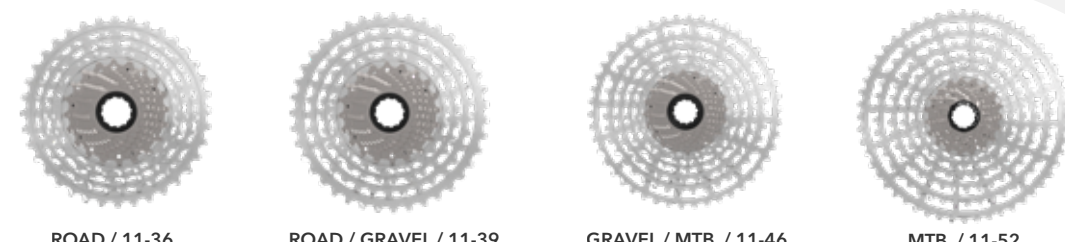
**Single Trigger Actuation.**  
Shift up and down with only one trigger.

**Removable Trigger.**  
Optional trigger for more efficient shifting while downhill.

**Direct Mount.**  
Clamp free attachment for better handlebar clearance and low weight.

**12s Cassettes**

Compatible with standard hubs and wheels plus Rotor **Q-RINGS** configuration (Rear derailleur + shifters)



ROAD / 11-36    ROAD / GRAVEL / 11-39    GRAVEL / MTB / 11-46    MTB / 11-52

1x13 Derailleur

**INDEX INSIDE**  
Traditionally rear shifting is controlled by in the front paddle. Gear indexing is actuated inside the rear derailleur for fast, reliable and accurate shifting.

**THE BOLT**  
A simple and immediate adjuster to work with 12-speed cassettes

**TOOL FREE GEAR SYNC**

**MTB Shifter**

**13s hub**

**CLUTCH**  
Eliminate pulley-cage bounce to prevent chain slack and ensure chain retention in the toughest conditions.

**EQUIX BRIDGE**  
Wider reinforced parallelogram for more precise shifting and maximised strength.



MTB chainring sizes



13s Hub

**Disc Brake Developed**  
(142x12 & 148x12-boost)

**Optimised Flange Spacing**  
Increased capacity for 13s cassette maintaining wheel stiffness & reliability.

**RVOLVER technology**  
Patented technology for optimized power transfer.

**Straight Pull**  
Straight pull flanges for a lighter & more elegant hub.

**Open standard freehub**



# ROTOR 1x13 - UNIFY YOUR RIDE

Developing pioneering products that provide benefits to cyclists is the essence of ROTOR's philosophy.

We are proud to present the world's first 1x13 groupset for a simplified and performance optimised gear shifting experience.

ROTOR 1x13, with its modular platform concept, crosses 3 cycling disciplines with a flexible choice of the drivetrain components to match your unique bike set-up.

## ROTOR's Drive Train Expertise

Our product development and manufacturing experience with the UNO groupset, INpower powermeters, cranksets, and hubs has given our engineers a deep understanding of the drive train transmission.

Our knowledge of creating solutions for optimising the cyclists pedaling power and our know-how in CNC machining has allowed us to incorporate these learnings in the design of the 1x13 Groupset.

With cyclist gear range requirements in mind we have created a complete range of cassettes and chainring sizes to deliver a similar gear ratio to the 2x11 configuration without the complication of front chainring gear shift or the need to install and maintain a front derailleur.

## Why 1x13?

Although initially for early adopters, the introduction of single ring (1x) drive trains has proven practical and successful for MTB riders and has now become the standard for elite and everyday riders.

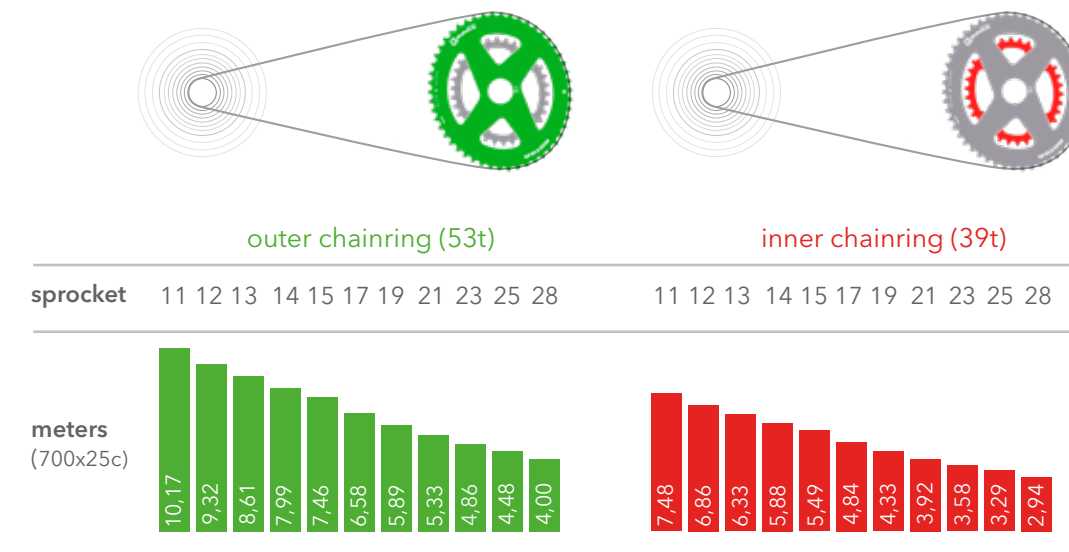
We believe road, gravel and cyclocross cyclists will follow the same pattern and have developed a solution to go one step further with our 13s cassettes and a gear ratio to match or improve your pedalling experience when you need to reach for more power.

## The science behind the gear ratios or why 2x11 doesn't mean 22 gears

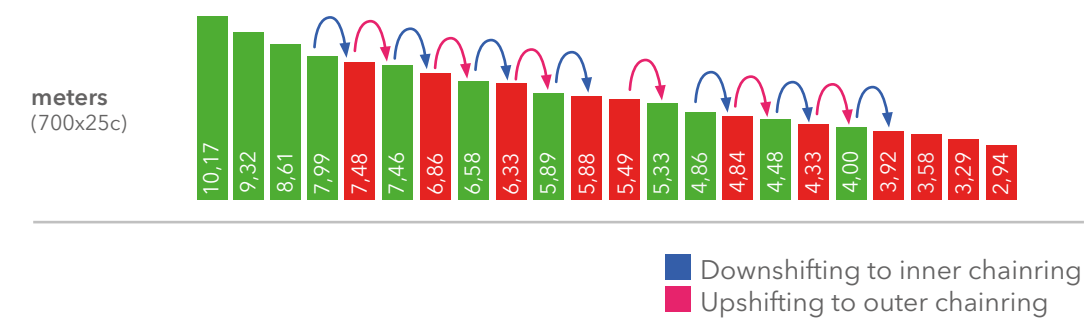
The 1x drivetrain is not currently considered an alternative to existing groupset systems for non-MTB disciplines because of the gear range or the scale of power cadence available to the cyclist between gear shifts.

Although the traditional 2x11 groupset has 22 theoretical gears, the Effective Gear Range is 14s due to overlap of chainring and sprocket combinations.

These are the meters developed in a 53/39 & 11-28 2x chainring drivetrain (dividing by chainring and sprocket size):

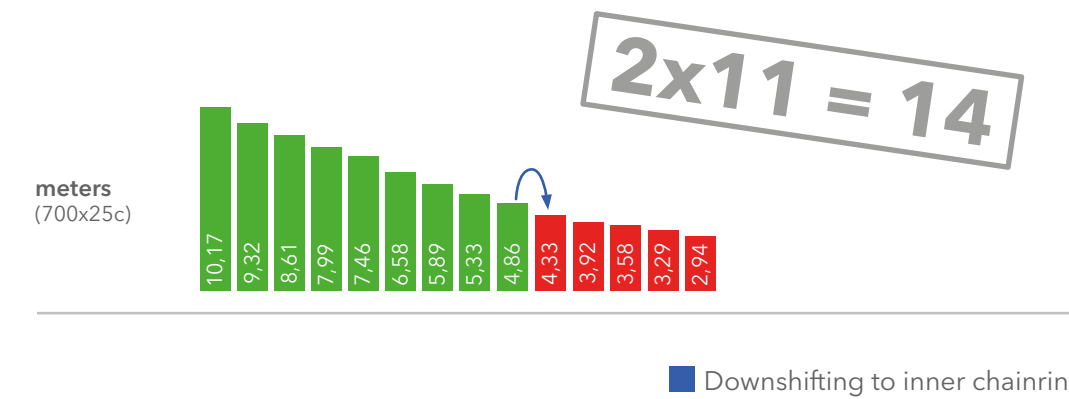


If we order them:



However, the cyclist never shifts between front rings 13 times with the corresponding shifts in the cassette.

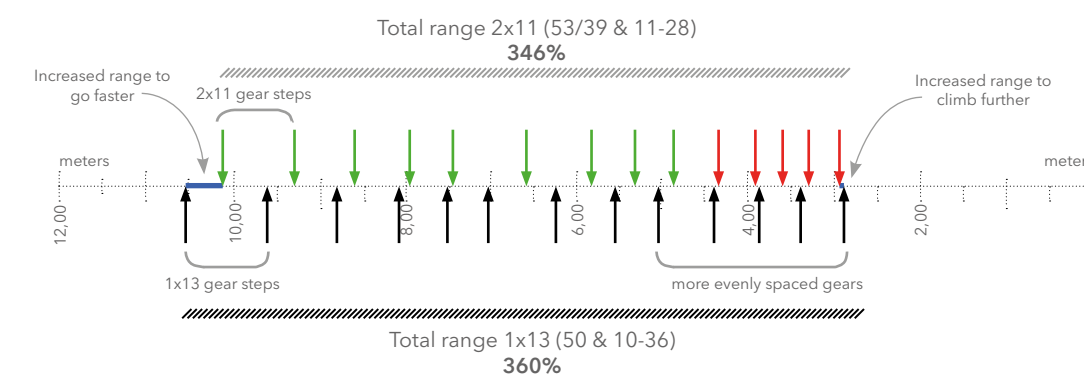
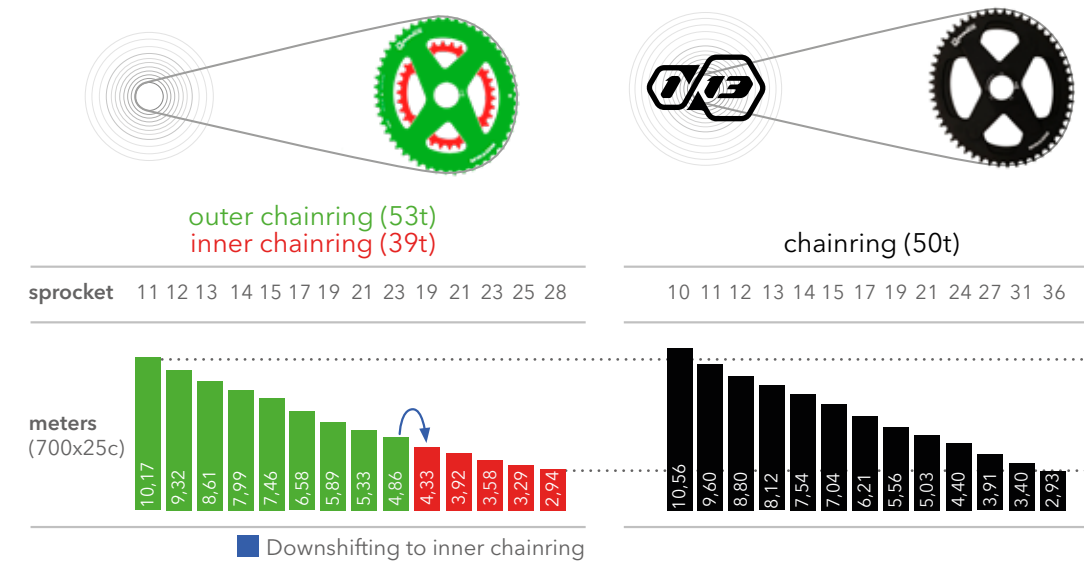
We are used to ride in the outer ring and upshift sprockets until a certain point. Then we shift down to the inner ring for optimal cadence.



Bypass the traditional challenging 2x front derailleur shift so you can focus on fluid rear shifting with reduced chance of chain loss or chain suck.

# ROTOR 1x13 ROAD / GRAVEL

ROTOR 1x13 platform brings a real alternative to the classic 2x11 drive trains; let's compare a classic 2x11 (53/39 & 11-28) drive train with ROTOR 1x13 (50 & 10-36):



Furthermore ROTOR provides 4 different cassettes sizes to accommodate the different spectrum of riders: 10-36, 10-39, 10-46 and 10-52.

So if we can afford a smaller total range (still bigger than 2x) and look for smaller steps in between gears, we can choose the 10-36 cassette.

### Total Range Equivalence Tables:

	11-28			11-30			11-32			11-36		
54/42	10,36	...	3,17	10,36	...	2,96	10,36	...	2,77	10,36	...	2,46
53/39	10,17	...	2,94	10,17	...	2,74	10,17	...	2,57	10,17	...	2,29
52/36	9,98	...	2,71	9,98	...	2,53	9,98	...	2,37	9,98	...	2,11
50/34	9,60	...	2,56	9,60	...	2,39	9,60	...	2,24	9,60	...	1,99
48/32	9,21	...	2,41	9,21	...	2,25	9,21	...	2,11	9,21	...	1,88
46/36	8,83	...	2,71	8,83	...	2,53	8,83	...	2,37	8,83	...	2,11
46/30	8,83	...	2,26	8,83	...	2,11	8,83	...	1,98	8,83	...	1,76

	10-36			10-39			10-46		
38	8,02	...	2,23	8,02	...	2,06	8,02	...	1,74
40	8,44	...	2,35	8,44	...	2,17	8,44	...	1,84
42	8,87	...	2,46	8,87	...	2,27	8,87	...	1,93
44	9,29	...	2,58	9,29	...	2,38	9,29	...	2,02
46	9,71	...	2,70	9,71	...	2,49	9,71	...	2,11
48	10,13	...	2,81	10,13	...	2,60	10,13	...	2,20
50	10,56	...	2,93	10,56	...	2,71	10,56	...	2,29
52	10,98	...	3,05	10,98	...	2,81	10,98	...	2,39
54	11,40	...	3,17	11,40	...	2,92	11,40	...	2,48

Identify your current metered gears range in the upper table to find the equivalent combination with 1x13 choices in lower table as shown in the colored examples.

# What about MTB drive trains?

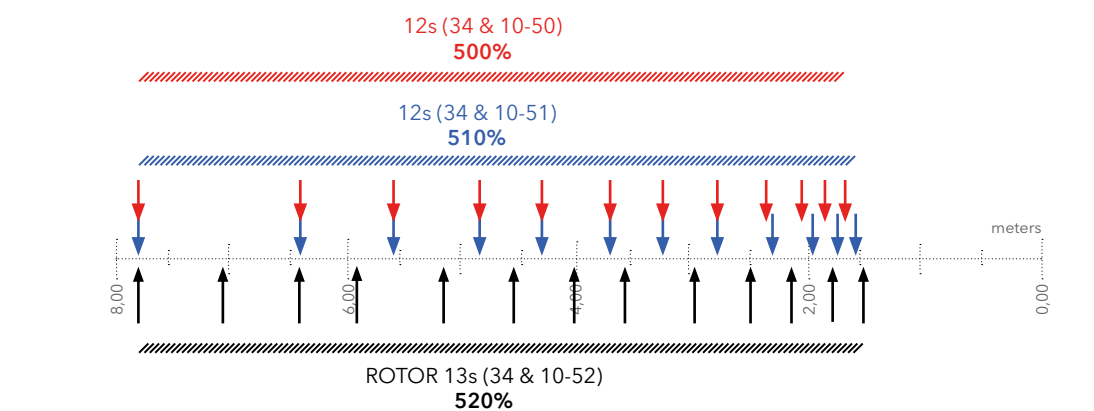
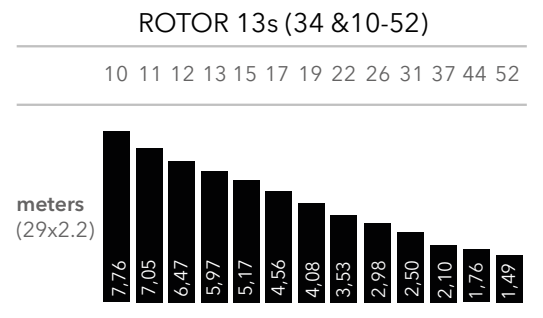
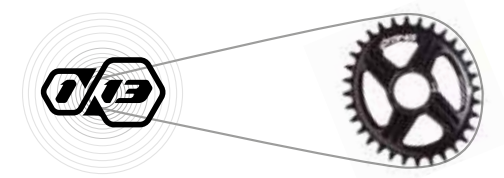
## Range

Those looking for more range will find it in the bigger 10-52 cassette.

## Gear steps

With one additional sprocket you can close the gap in the high gears and ride at your optimal cadence.

For smaller gear steps there is an additional choice of 10-46 cassette.



# What are the unique benefits?

- Simplified shifting**  
Leave behind the anticipation for the challenging front derailleur shift in the crucial race moment to avoid chain loss or chain suck.
- Alternative**  
Exclusive 1x13 platform is a real alternative in range and gear steps to the traditional 2x11 drivetrains.
- Flexibility**  
Bigger gear range and more gear choices compared to existing MTB 1x12 systems.
- Modular platform**  
Unique 1x13 modular platform concept fits different cycling needs with the choice of shifters, cassettes, optimised direct mount chainrings and cranks.
- Lightweight**  
Simplified 1x chainring without front derailleur means reduced weight and mechanical complexity with improved aerodynamics.
- Hydraulic actuation benefits:**
  - Maintenance free: Install, Bleed, Forget. No cables to replace, no batteries to charge.
  - Internal routing ready.
  - Lighter than battery powered and mechanical systems.
  - Hydraulic technology with proven reliability.