Q-Factor 101

Q-factor is a term used to describe a crankset's width, measured in millimeters at the outside edges of the assembled crankarms.



This value typically ranges between 147 and 223, and is a function of crank spindle length, bottom bracket width/type, and chainstay specifications to ensure proper chain-line relative to tire dimensions and rear hub spacing.



List of typical Q-Factors based on Bicycle Type and Discipline

Typical Q-Factors and Discipline				
Discipline	Q-Factor	Quick Release	Through Axle	Tire Width
Road	145-157	130-135	142	18-28mm
Touring	145-157	130-135	142	25-42mm
Gravel	145-157	130-135	142	32-42mm
Cyclocross	154-157	130-135	142	28-40 (UCI)mm
MTB-XC	156-177	135	142	48-60mm
MTB-DH	183-193	135	148-157	56-64mm
Fat 170	203-213	170	177	88-102mm
Fat 190	203-233	190	197	110+mm

Hopefully you can see that tire and wheel size impact these dimensions. Larger tires require wider chainstays; wider chainstays require increased hub spacing, bottom bracket width, and crankset q-factor.

