

VBC CHAIN RING-CHAIN STAY CLEARANCES

1. These calculations are based on using a **113mm, symmetrical, JIS, square taper, White Industries bottom bracket** which yields a 47.5mm chain line. This is measured from the center-line of the seat tube to the center-line of the outer chain ring. The inner chain ring sits at 38.3mm. To determine whether there will be suitable clearance between the inner chain ring and the chain stay, you must determine which chain ring you intend to use. For example, choose a 38t inner chain ring and note that the radius of a 38t chain ring is 80mm. Measure from the center of the bottom bracket back along the length of the drive side chain stay 80mm and mark that point on the outside of the chain stay (you can use a piece of masking tape). Next, measure across to the same point on the non-drive side chain stay and record the width of the chain stays, outside to outside. If your measurement is 66.6mm or less, you can safely run a 38t inner chain ring on your frame, using our ENO or VBC crank sets and a 113mm bottom bracket. If your measurement is over 66.6mm*, say 71.6mm for example, double the 5mm difference and add it to 113 and you need a 123mm long bottom bracket to provide adequate clearance between the inner chain ring and chain stay.

*Maximum chain stay width (outside to outside) at a given radius = 66.6mm

Inner chain ring

38t = 80mm radius

36t = 76mm radius

34t = 72mm radius

32t = 67mm radius

30t = 63mm radius

28t = 59mm radius

26t = 55mm radius

24t = 51mm radius

2. These calculations are based on using a **121mm, symmetrical, JIS, square taper, White Industries bottom bracket** which yields a 51.5mm chain line. This is measured from the center-line of the seat tube to the center-line of the outer chain ring. The inner chain ring sits at 42.3mm. To determine whether there will be suitable clearance between the chain ring and the chain stay, you must determine which chain ring you intend to use. For example, choose a 38t inner chain ring and note that the radius of a 38t chain ring is 80mm. Measure from the center of the bottom bracket back along the length of the drive side chain stay 80mm and mark that point on the outside of the chain stay (you can use a piece of masking tape). Next, measure across to the same point on the non-drive side chain stay and record the width of the chain stays, outside to outside. If your measurement is 74.6mm or less, you can safely run a 38t inner chain ring on your frame, using our ENO or VBC crank sets and a 121mm bottom bracket. If your measurement is over 74.6mm*, say 78.6mm for example, double the 4mm difference add it to 121 and you need a 129mm long bottom bracket to provide adequate clearance between the inner chain ring and chain stay.

*Maximum chain stay width (outside to outside) at a given radius = 74.6mm

Inner chain ring

38t = 80mm radius

36t = 76mm radius

34t = 72mm radius

32t = 67mm radius

30t = 63mm radius

28t = 59mm radius

26t = 55mm radius

24t = 51mm radius