



**KINGPIN Fab**  
**MARBURG**  
**QLD 4346**  
**AUSTRALIA**  
**0466 303 137**

---

## MEASURING FOR SPRING BIND ON UP TRAVEL:

---

YOU CAN EASILY WORK OUT IF YOU'LL GET COIL BIND BEFORE HITTING YOUR BUMPSTOPS UP FRONT  
BY DOING THE FOLLOWING:

- Measure the wire dia of your coil (with vernier callipers preferably)
- Starting at the end of the coil, count how many individual turns of wire your coil has from top to bottom. Usual numbers would be between 8 and 13
- Multiply these two figures to get what is known as your 'solid height' (coil diameter x number of coil turns = solid height). Whilst this is not deadly accurate—its good enough to get you an idea of how your looking in terms of the purpose of this exercise.
- Measure your 'bumpstop clearance' on flat level ground.
- Measure your spring 'load height' (PLEASE REFER TO OUR 'HOW TO MEASURE SPRING LIFT' GUIDE IF YOUR UNSURE HOW)
- Take your spring load height, and minus your 'bumpstop clearance' figure. (SPRING LOAD HEIGHT - BUMPSTOP CLEARANCE = SPING HEIGHT WHEN YOU HIT YOUR BUMPSTOPS)
- If your figure you have on the above calculation is smaller than your 'solid height', you will have spring bind before hitting the bumps

HERE IS A REAL LIFE EXAMPLE:

Wire dia = 16.5mm

Coil turns = approx. 10

**CALCULATION ONE:**  $16.5 \times 10 = 165\text{mm}$ .

We also have a spring retainer int here 5mm think so we will add that too! (+5mm)

$165\text{mm} + 5\text{mm} = 170\text{mm}$  solid spring height

Bumpstop clearance = 125mm

Spring load height = 310mm

**CALCULATION TWO:**  $300\text{mm} - 125\text{mm} = 185\text{mm}$  spring height when you hit your bumpstops

**SUMMARY:** CALCULATION TWO'S ANSWER IS GREATER THAN CALCULATION ONES'S ANSWER BY 15mm. THIS MEANS WHEN YOU HIT YOUR BUMPSTOPS, THIS SPRING HAS 15mm MORE COMPRESSION TO GO BEFORE BECOMING 'SOLID'.