



## Theoretical plate estimates indicates column condition - Primer

One can estimate a reasonable plate number for any column as:

$$N \approx 300 L/dp$$

L is the column length (in millimeters) and dp is the particle diameter (in micrometers).

For example for 250mm x 4.6mm column packed with 5 micron particles, the predicted value is:

$$N \approx 15,000$$

If the measured value of N is about 20% of this predicted value, the column is in good condition.