Q-QUIZ NOVEMBER 2017 - ANSWERS

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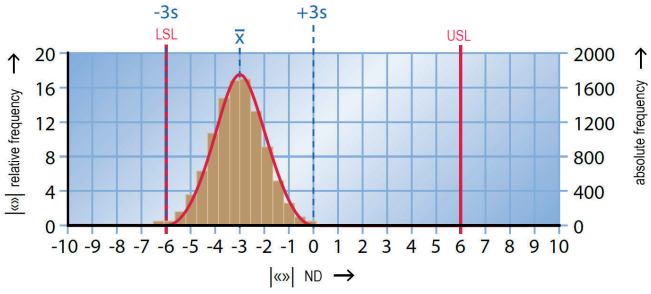
Hardly any manufacturing company can do without process capability indices (C_p and C_{pk}). Even though you normally use software solutions to calculate them, the following 3 exercises show you how to estimate them based on graphics.

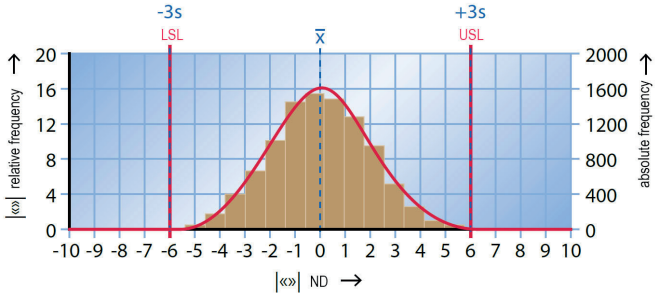
1. C_p = tolerance width / nat. process variation
= 12 / 6 = 2.0

C_{pk} = crit. distance / half the nat. process variation
= 6 / 6 = 1.0



2. C_p = 12 / 12 = 1.0

Since the process is perfectly centralised, $C_p = C_{pk}$ = 1.0



3. Cp = 12 / 9 = 1.33

Since the process is perfectly centralised, $C_p = C_{pk}$ = 1.33