

Np chart Examples

<u>Lot Identification</u>	<u>Sample Size (Constant)</u>	<u>Number Defective (In the Sample)</u>
1	100	9
2	100	6
3	100	7
4	100	3
5	100	4
6	100	6
7	100	3
8	100	3
9	100	3
10	100	4
11	100	4
12	100	6
13	100	4
14	100	5
15	100	2
16	100	3
17	100	2
18	100	8
19	100	4
20	100	3
21	100	2
22	100	3
23	100	4
24	100	8
25	100	6
<u>k = 25</u>	<u>n = 100</u>	<u>∑np = 112</u>

$$k = 25 \quad \bar{np} = \frac{\text{total defective}}{\text{no. of lots}} = \frac{112}{25} = 4.5$$

The control limits are determined by the formula:

$$UCL_{np}, LCL_{np} = \bar{np} \pm 3\sqrt{\bar{np}\left(1 - \frac{\bar{np}}{n}\right)} = 4.5 \pm 3\sqrt{(4.5)(0.955)}$$

$$UCL_{np} = 10.7 \quad LCL_{np} = -1.72 = 0$$

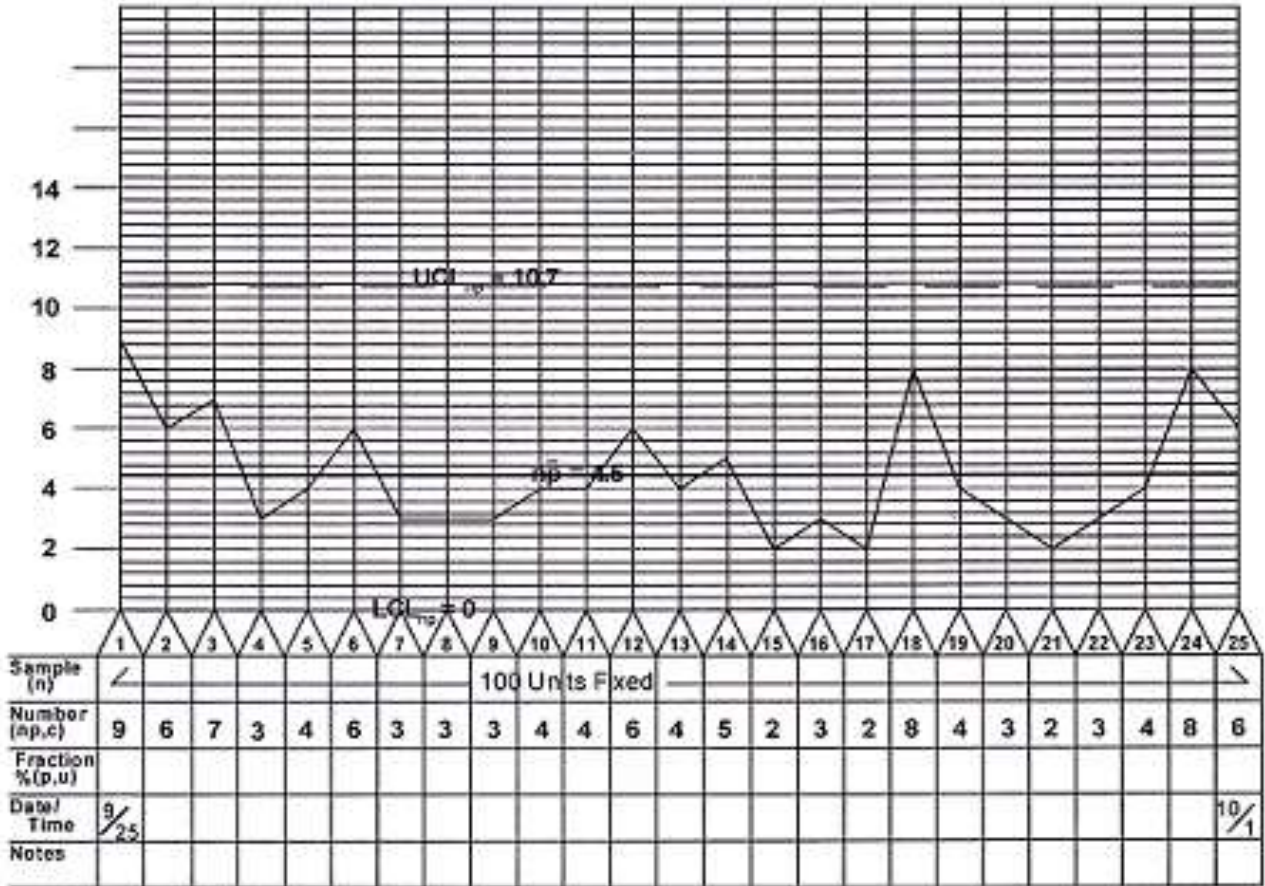
Attributes Control Chart Form

p np c u

PART #: Encyclopedia DESCRIPTION: SPC Checklist CHARACTERISTIC: Any Defective DATE: 9/25 - 10/1

SOURCE: Binding Department OPERATOR: _____ INSPECTOR: YCU

UCL _____ LCL: 0 AVERAGE: _____



Sample (n)	100 Units Fixed																								
Number (np,c)	9	6	7	3	4	6	3	3	3	4	4	6	4	5	2	3	2	8	4	3	2	3	4	8	6
Fraction % (p,u)																									
Date/Time	9/25																							10/1	
Notes																									