**样表**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 记录数据 | 序号 | 记录数据 | 序号 | 记录数据 | 序号 | 记录数据 |
| 1 | -1 | 26 | -5 | 51 | 1 | 76 | -9 |
| 2 | -11 | 27 | -9 | 52 | -6 | 77 | -8 |
| 3 | -12 | 28 | -10 | 53 | -1 | 78 | -15 |
| 4 | -1 | 29 | -7 | 54 | -5 | 79 | 0 |
| 5 | 5 | 30 | 0 | 55 | 13 | 80 | -1 |
| 6 | -5 | 31 | -4 | 56 | -9 | 81 | 4 |
| 7 | -19 | 32 | 7 | 57 | -1 | 82 | 2 |
| 8 | 10 | 33 | 3 | 58 | -5 | 83 | -7 |
| 9 | 3 | 34 | 1 | 59 | -5 | 84 | 0 |
| 10 | -8 | 35 | -1 | 60 | 0 | 85 | -9 |
| 11 | -5 | 36 | -15 | 61 | -2 | 86 | 1 |
| 12 | -5 | 37 | -1 | 62 | -1 | 87 | -3 |
| 13 | -10 | 38 | -5 | 63 | -1 | 88 | 1 |
| 14 | 5 | 39 | 10 | 64 | -9 | 89 | -6 |
| 15 | -2 | 40 | -2 | 65 | -1 | 90 | 9 |
| 16 | -5 | 41 | -1 | 66 | -1 | 91 | 3 |
| 17 | -4 | 42 | 8 | 67 | 1 | 92 | -2 |
| 18 | -5 | 43 | 9 | 68 | 8 | 93 | -2 |
| 19 | 2 | 44 | 12 | 69 | -6 | 94 | 2 |
| 20 | -5 | 45 | 5 | 70 | -4 | 95 | -1 |
| 21 | -2 | 46 | 4 | 71 | 1 | 96 | 11 |
| 22 | 0 | 47 | 10 | 72 | -2 | 97 | -9 |
| 23 | 0 | 48 | 7 | 73 | 5 | 98 | -3 |
| 24 | -2 | 49 | 9 | 74 | 3 | 99 | -1 |
| 25 | 1 | 50 | 10 | 75 | -1 | 100 | 16 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 组  号 | 组界 | 中心值  xi | 频数  mi | 频率  Fi(%) | xi- | （xi-）2 | （xi-）2mi |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | -21~-17 | -19 | 1 | 1 | -18.04 | 325.44 | 325.44 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 | -17~-13 | -15 | 2 | 2 | -14.04 | 197.12 | 394.24 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 | -13~-9 | -11 | 10 | 10 | -10.04 | 100.80 | 1008.01 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 | -9~-5 | -7 | 18 | 18 | -6.04 | 36.48 | 656.67 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 | -5~-1 | -3 | 28 | 28 | -2.04 | 4.16 | 116.52 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | -1~3 | 1 | 20 | 20 | 1.96 | 3.84 | 76.83 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7 | 3~7 | 5 | 8 | 8 | 5.96 | 35.52 | 284.17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8 | 7~11 | 9 | 10 | 10 | 9.96 | 99.20 | 992.02 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9 | 11~15 | 13 | 2 | 2 | 13.96 | 194.88 | 389.76 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 | 15~19 | 17 | 1 | 1 | 17.96 | 322.56 | 322.56 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| , | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

表1-4 实际分布曲线图（直方图）

-R控制图数据

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 样组号 | 平均值 | 极差  R | 样组号 | 平均值 | 极差  R | 样组号 | 平均值 | 极差  R |
| 1 | -6.25 | 11 | 10 | 0.5 | 15 | 19 | -0.5 | 14 |
| 2 | -2.25 | 29 | 11 | 7 | 13 | 20 | -6 | 15 |
| 3 | -3.75 | 11 | 12 | 6.5 | 6 | 21 | -0.25 | 11 |
| 4 | -3 | 15 | 13 | 3.5 | 16 | 22 | -2.5 | 10 |
| 5 | -3 | 7 | 14 | -1.25 | 19 | 23 | 1 | 15 |
| 6 | -1 | 2 | 15 | -2.75 | 5 | 24 | 2.5 | 13 |
| 7 | -5.75 | 11 | 16 | -3.25 | 8 | 25 | 0.75 | 25 |
| 8 | 0.5 | 20 | 17 | 1.75 | 9 |  |  |  |
| 9 | -3 | 18 | 18 | -2.75 | 7 |  |  |  |

1. 从图看，本工序的工艺过程稳定吗？如果不稳定，试分析其原因。

