

Specifications(JIS)

| (Classification)   | Standard   | Class    | Symbol | Manufacturing Method | 化学成分 (%)<br>(Chemical Composition) |             |             |                |                |       |             |             | 機械的性質 (最小値)<br>(Mechanical Properties(MiniUM)) |   | 寸法許容差<br>(Tolerances Dimensions)    |  |                           |  |                                |                                |  |                              |
|--|--|----------|--------|----------------------|------------------------------------|-------------|-------------|----------------|----------------|-------|-------------|-------------|--|---|-------------------------------------|--|---------------------------|--|--------------------------------|--------------------------------|--|------------------------------|
|  |  |          |        |                      | C                                  | Si          | Mn          | P<br>(Maximnm) | S<br>(Maximnm) | Ni    | Cr          | Mo          | Etc.   | Tensil Strength<br>(kgf/mm2)<br>(N/mm2) | Yield Point<br>(kgf/mm2)<br>(N/mm2) | Outside Diameater(mm)  |                           | Thickness (mm)   |                                | length (mm)                    |  |                              |
|  |  |          |        |                      |                                    |             |             |                |                |       |             |             |  |   |                                     | Class  | D=Outside Diameater       | Class  | t=Thickness                    |                                | Class<br>D=Outside Diameater<br>L = Length               | Tolerances                   |
|  |  |          |        |                      |                                    |             |             |                |                |       |             |             |  |   |                                     |  |                           |  | Seamless                       | Other Than Seamless            |  |                              |
| For structural purposes  | JIS G3444  | 1        | STK290 | S E B A              |                                    |             |             | 0.05           | 0.05           |       |             |             | 290  |   | 1                                   | D < 50 ± 0.5<br>D 50 ± 1%  | 1                         | t < 4<br>t 4   | +0.6<br>-0.5<br>+15%<br>-12.5% | +0.6<br>-0.5<br>+15%<br>-1.5   | More than the appointed length in care appointed length. |                              |
|  |  | 2        | STK400 |                      | 0.25                               |             |             | 0.04           | 0.04           |       |             | 400         | 235  |   |                                     |  |                           |  |                                |                                |  |                              |
|  | Carbon Steel Tubes for General Structural Purposes No.566209                 |          | 3      |                      | STK500                             | 0.24        | 0.35        | 0.30 ~ 1.30    | 0.04           | 0.04  |             |             | 500  | 355                                     |                                     |  |                           |  |                                |                                |  |                              |
|  |  |          | 4      |                      | STK490                             | 0.18        | 0.55        | 1.50           | 0.04           | 0.04  |             |             | 490  | 315                                     |                                     |  |                           |  |                                |                                |  |                              |
|  |  | 5        | STK540 |                      | 0.23                               | 0.55        | 1.50        | 0.04           | 0.04           |       |             | 540         | 390  | 2                                       |                                     |  |                           |  |                                |                                |  | D < 50 ± 0.25<br>D 50 ± 0.5% |
|  | JIS G3445<br>Carbon Steel Tubes for Machine Structural Purposes 許可 No.566209 | 11       | A      | STKM11 A             | S E B                              | 0.12        | 0.35        | 0.60           | 0.040          | 0.040 |             |             |  | 290                                     |                                     | 1  | D < 50 ± 0.5<br>D 50 ± 1% | 1  | t < 4<br>t 4                   | +0.6<br>-0.5<br>+15%<br>-12.5% | +50<br>-0  |                              |
|  |  |          | A      | STKM12 A             |                                    |             |             |                |                |       |             | 340         | 175  |   |                                     |  |                           |  |                                |                                |  |                              |
|  |  | 12       | B      | STKM12 B             |                                    | 0.20        | 0.35        | 0.60           | 0.040          | 0.040 |             |             | 390  | 275                                     |                                     |  |                           |  |                                |                                |  |                              |
|  |  |          | C      | STKM12 C             |                                    |             |             |                |                |       |             | 470         | 355  |   |                                     |  |                           |  |                                |                                |  |                              |
|  |  |          | A      | STKM13 A             | S E                                | 0.25        | 0.35        | 0.30 ~ 0.90    | 0.040          | 0.040 |             |             |  |   | 370                                 | 216  | 2                         | D < 50 ± 0.25<br>D 50 ± 0.5%   | 2                              | t < 3<br>t 3                   |  | ± 0.3<br>± 10%               |
|  |  |          | B      | STKM13 B             |                                    |             |             |                |                |       |             |             |  |   | 440                                 | 305  |                           |  |                                |                                |  |                              |
|  |  |          | C      | STKM13 C             |                                    |             |             |                |                |       |             |             |  |   | 510                                 | 380  |                           |  |                                |                                |  |                              |
|  |  |          | A      | STKM14 A             | S E                                | 0.25        | 0.35        | 0.30 ~ 1.00    | 0.040          | 0.040 |             |             |  |   | 410                                 | 245  | 3                         | D < 25 ± 0.12<br>25 D < 40 ± 0.15<br>40 D < 50 ± 0.18<br>50 D < 60 ± 0.20<br>60 D < 70 ± 0.23<br>70 D < 80 ± 0.25<br>80 D < 90 ± 0.30<br>90 D < 100 ± 0.40<br>D 100 ± 0.5% | 3                              | t < 2<br>t 2                   |  | ± 0.15<br>± 8%               |
|  |  |          | B      | STKM14 B             |                                    |             |             |                |                |       |             |             |  |   | 500                                 | 355  |                           |  |                                |                                |  |                              |
|  |  |          | C      | STKM14 C             |                                    |             |             |                |                |       |             |             |  |   | 550                                 | 410  |                           |  |                                |                                |  |                              |
|  |  |          | A      | STKM15 A             | S E                                | 0.25 ~ 0.35 | 0.35        | 0.30 ~ 1.00    | 0.040          | 0.040 |             |             |  |   | 470                                 | 275  | 3                         |  |                                |                                |  |                              |
|  |  |          | C      | STKM15 C             |                                    |             |             |                |                |       |             |             |  |   | 580                                 | 430  |                           |  |                                |                                |  |                              |
|  |  |          | A      | STKM16 A             | S E                                | 0.35 ~ 0.45 | 0.40        | 0.40 ~ 1.00    | 0.040          | 0.040 |             |             |  |   | 510                                 | 325  | 3                         |  |                                |                                |  |                              |
|  |  |          | B      | STKM16 B             |                                    |             |             |                |                |       |             |             |  |   | 620                                 | 460  |                           |  |                                |                                |  |                              |
|  |  |          | C      | STKM16 C             |                                    |             |             |                |                |       |             |             |  |   | 650                                 | 480  |                           |  |                                |                                |  |                              |
|  | A  | STKM17 A | S E    | 0.45 ~ 0.55          | 0.40                               | 0.40 ~ 1.00 | 0.040       | 0.040          |                |       |             |             | 550  | 345                                     | 3                                   |  |                           |  |                                |                                |  |                              |
|  | C  | STKM17 C |        |                      |                                    |             |             |                |                |       |             |             | 650  | 480                                     |                                     |  |                           |  |                                |                                |  |                              |
|  | A  | STKM18 A | S E    | 0.18                 | 0.55                               | 1.50        | 0.040       | 0.040          |                |       |             |             | 440  | 275                                     | 3                                   |  |                           |  |                                |                                |  |                              |
|  | B  | STKM18 B |        |                      |                                    |             |             |                |                |       |             |             | 490  | 315                                     |                                     |  |                           |  |                                |                                |  |                              |
|  | C  | STKM18 C |        |                      |                                    |             |             |                |                |       |             |             | 510  | 380                                     |                                     |  |                           |  |                                |                                |  |                              |
|  | A  | STKM19 A | S E    | 0.25                 | 0.55                               | 1.50        | 0.040       | 0.040          |                |       |             |             | 490  | 315                                     | 3                                   |  |                           |  |                                |                                |  |                              |
|  | C  | STKM19 C |        |                      |                                    |             |             |                |                |       |             |             | 550  | 410                                     |                                     |  |                           |  |                                |                                |  |                              |
|  | A  | STKM20 A | S E    | 0.25                 | 0.55                               | 1.60        | 0.040       | 0.040          |                |       |             |             | 540  | 390                                     |                                     |  |                           |  |                                |                                |  |                              |
| JIS G3441<br>Alloy Steel Tubes for Machine Structural Purposes | SCr420TK   |          |        | S E                  | 0.18 ~ 0.23                        | 0.15 ~ 0.35 | 0.60 ~ 0.85 | 0.030          | 0.030          |       | 0.90 ~ 1.20 |             |  |   | 1                                   | D < 50 ± 0.5<br>D 50 ± 1%  |                           |  |                                |                                |  |                              |
|  | SCM415TK   |          |        |                      | 0.13 ~ 0.18                        | 0.15 ~ 0.35 | 0.60 ~ 0.85 | 0.030          | 0.030          |       | 0.90 ~ 1.20 | 0.15 ~ 0.30 |  |   | 2                                   | D < 50 ± 0.25<br>D 50 ± 0.5%   |                           |  |                                |                                |  |                              |
|  | SCM418TK   |          |        |                      | 0.16 ~ 0.21                        | 0.15 ~ 0.35 | 0.60 ~ 0.85 | 0.030          | 0.030          |       | 0.90 ~ 1.20 | 0.15 ~ 0.30 |  |   | 3                                   | D < 25 ± 0.12<br>25 D < 40 ± 0.15<br>40 D < 50 ± 0.18<br>50 D < 60 ± 0.20<br>60 D < 70 ± 0.23<br>70 D < 80 ± 0.25<br>80 D < 90 ± 0.30<br>90 D < 100 ± 0.40<br>100 D ± 0.5% | 1                         | t < 4<br>t 4   | +0.6<br>-0.5<br>+15%<br>-0.125 |                                |  |                              |
|  | SCM420TK   |          |        |                      | 0.18 ~ 0.23                        | 0.15 ~ 0.35 | 0.60 ~ 0.85 | 0.030          | 0.030          |       | 0.90 ~ 1.20 | 0.15 ~ 0.30 |  |   |                                     |  |                           |  |                                | 2                              | t < 3<br>t 3   | ± 0.3<br>± 10%               |
|  | SCM430TK   |          |        |                      | 0.28 ~ 0.33                        | 0.15 ~ 0.35 | 0.60 ~ 0.85 | 0.030          | 0.030          |       | 0.90 ~ 1.20 | 0.15 ~ 0.30 |  |   | 4                                   | D < 13 ± 0.25<br>13 D < 25 ± 0.40<br>25 D < 40 ± 0.60<br>40 D < 65 ± 0.80<br>65 D < 90 ± 1.00<br>90 D < 140 ± 1.20<br>140 < D  | 3                         | t < 2<br>t 2   | ± 0.15<br>± 8%                 |                                |  |                              |
|  | SCM435TK   |          |        |                      | 0.33 ~ 0.38                        | 0.15 ~ 0.35 | 0.60 ~ 0.85 | 0.030          | 0.030          |       | 0.90 ~ 1.20 | 0.15 ~ 0.30 |  |   |                                     |  |                           |  |                                |                                |  |                              |
|  | SCM440TK   |          |        |                      | 0.38 ~ 0.43                        | 0.15 ~ 0.35 | 0.60 ~ 0.85 | 0.030          | 0.030          |       | 0.90 ~ 1.20 | 0.15 ~ 0.30 |  |   |                                     |  |                           |  |                                |                                |  |                              |