

Example Ø 16N7/h6

Hole Size Ø 15.995  
15.977

Shaft Size Ø 16.000  
15.989

Max. Clearance 0.006

Max. Interference 0.023

Example Ø 45U7/h6

Hole Size Ø 44.939  
44.914

Shaft Size Ø 45.000  
44.984

Min. Interference 0.045

Max. Interference 0.086

| PREFERRED SHAFT BASIS TRANSITION AND INTERFERENCE FITS |     |                       |         |        |                       |         |        |                       |         |        |                 |         |        |          |         |        |
|--|-----|-----------------------|---------|--------|-----------------------|---------|--------|-----------------------|---------|--------|-----------------|---------|--------|----------|---------|--------|
| UPTO AND INCLUDING                                     |     | LOCATIONAL TRANSN. K7 |         |        | LOCATIONAL TRANSN. N7 |         |        | LOCATIONAL INTERF. P7 |         |        | MEDIUM DRIVE S7 |         |        | FORCE U7 |         |        |
|  |     | Hole                  | Shaft   | Fit    | Hole                  | Shaft   | Fit    | Hole                  | Shaft   | Fit    | Hole            | Shaft   | Fit    | Hole     | Shaft   | Fit    |
| 1  | MAX | 1.000                 | 1.000   | 0.006  | 0.996                 | 1.000   | 0.002  | 0.994                 | 1.000   | 0.000  | 0.986           | 1.000   | -0.008 | 0.982    | 1.000   | -0.012 |
|  | MIN | 0.990                 | 0.994   | -0.010 | 0.986                 | 0.994   | -0.014 | 0.984                 | 0.994   | -0.016 | 0.976           | 0.994   | -0.024 | 0.972    | 0.994   | -0.028 |
| 1.2  | MAX | 1.200                 | 1.200   | 0.006  | 1.196                 | 1.200   | 0.002  | 1.194                 | 1.200   | 0.000  | 1.186           | 1.200   | -0.008 | 1.182    | 1.200   | -0.012 |
|  | MIN | 1.190                 | 1.194   | -0.010 | 1.186                 | 1.194   | -0.014 | 1.184                 | 1.194   | -0.016 | 1.176           | 1.194   | -0.024 | 1.172    | 1.194   | -0.028 |
| 1.6  | MAX | 1.600                 | 1.600   | 0.006  | 1.596                 | 1.600   | 0.002  | 1.594                 | 1.600   | 0.000  | 1.586           | 1.600   | -0.008 | 1.582    | 1.600   | -0.012 |
|  | MIN | 1.590                 | 1.594   | -0.010 | 1.586                 | 1.594   | -0.014 | 1.584                 | 1.594   | -0.016 | 1.576           | 1.594   | -0.024 | 1.572    | 1.594   | -0.028 |
| 2  | MAX | 2.000                 | 2.000   | 0.006  | 1.996                 | 2.000   | 0.002  | 1.994                 | 2.000   | 0.000  | 1.986           | 2.000   | -0.008 | 1.982    | 2.000   | -0.012 |
|  | MIN | 1.990                 | 1.994   | -0.010 | 1.986                 | 1.994   | -0.014 | 1.984                 | 1.994   | -0.016 | 1.976           | 1.994   | -0.024 | 1.972    | 1.994   | -0.028 |
| 2.5  | MAX | 2.500                 | 2.500   | 0.006  | 2.496                 | 2.500   | 0.002  | 2.494                 | 2.500   | 0.000  | 2.486           | 2.500   | -0.008 | 2.482    | 2.500   | -0.012 |
|  | MIN | 2.490                 | 2.494   | -0.010 | 2.486                 | 2.494   | -0.014 | 2.484                 | 2.494   | -0.016 | 2.476           | 2.494   | -0.024 | 2.472    | 2.494   | -0.028 |
| 3  | MAX | 3.000                 | 3.000   | 0.006  | 2.996                 | 3.000   | 0.002  | 2.994                 | 3.000   | 0.000  | 2.986           | 3.000   | -0.008 | 2.982    | 3.000   | -0.012 |
|  | MIN | 2.990                 | 2.994   | -0.010 | 2.986                 | 2.994   | -0.014 | 2.984                 | 2.994   | -0.016 | 2.976           | 2.994   | -0.024 | 2.972    | 2.994   | -0.028 |
| 4  | MAX | 4.003                 | 4.000   | 0.011  | 3.996                 | 4.000   | 0.004  | 3.992                 | 4.000   | 0.000  | 3.985           | 4.000   | -0.007 | 3.981    | 4.000   | -0.011 |
|  | MIN | 3.991                 | 3.992   | -0.009 | 3.984                 | 3.992   | -0.016 | 3.980                 | 3.992   | -0.020 | 3.973           | 3.992   | -0.027 | 3.969    | 3.992   | -0.031 |
| 5  | MAX | 5.003                 | 5.000   | 0.011  | 4.996                 | 5.000   | 0.004  | 4.992                 | 5.000   | 0.000  | 4.985           | 5.000   | -0.007 | 4.981    | 5.000   | -0.011 |
|  | MIN | 4.991                 | 4.992   | -0.009 | 4.984                 | 4.992   | -0.016 | 4.980                 | 4.992   | -0.020 | 4.973           | 4.992   | -0.027 | 4.969    | 4.992   | -0.031 |
| 6  | MAX | 6.003                 | 6.000   | 0.011  | 5.996                 | 6.000   | 0.004  | 5.992                 | 6.000   | 0.000  | 5.985           | 6.000   | -0.007 | 5.981    | 6.000   | -0.011 |
|  | MIN | 5.991                 | 5.992   | -0.009 | 5.984                 | 5.992   | -0.016 | 5.980                 | 5.992   | -0.020 | 5.973           | 5.992   | -0.027 | 5.969    | 5.992   | -0.031 |
| 8  | MAX | 8.005                 | 8.000   | 0.014  | 7.996                 | 8.000   | 0.005  | 7.991                 | 8.000   | 0.000  | 7.983           | 8.000   | -0.008 | 7.978    | 8.000   | -0.013 |
|  | MIN | 7.990                 | 7.991   | -0.010 | 7.981                 | 7.991   | -0.019 | 7.976                 | 7.991   | -0.024 | 7.968           | 7.991   | -0.032 | 7.963    | 7.991   | -0.037 |
| 10   | MAX | 10.005                | 10.000  | 0.014  | 9.996                 | 10.000  | 0.005  | 9.991                 | 10.000  | 0.000  | 9.983           | 10.000  | -0.008 | 9.978    | 10.000  | -0.013 |
|  | MIN | 9.990                 | 9.991   | -0.010 | 9.981                 | 9.991   | -0.019 | 9.976                 | 9.991   | -0.024 | 9.968           | 9.991   | -0.032 | 9.963    | 9.991   | -0.037 |
| 12   | MAX | 12.006                | 12.000  | 0.017  | 11.995                | 12.000  | 0.006  | 11.989                | 12.000  | 0.000  | 11.979          | 12.000  | -0.010 | 11.974   | 12.000  | -0.015 |
|  | MIN | 11.988                | 11.989  | -0.012 | 11.977                | 11.989  | -0.023 | 11.971                | 11.989  | -0.029 | 11.961          | 11.989  | -0.039 | 11.950   | 11.989  | -0.044 |
| 16   | MAX | 16.006                | 16.000  | 0.017  | 15.995                | 16.000  | 0.006  | 15.989                | 16.000  | 0.000  | 15.979          | 16.000  | -0.010 | 15.974   | 16.000  | -0.015 |
|  | MIN | 15.988                | 15.989  | -0.012 | 15.977                | 15.989  | -0.023 | 15.971                | 15.989  | -0.029 | 15.961          | 15.989  | -0.039 | 15.956   | 15.989  | -0.044 |
| 20   | MAX | 20.006                | 20.000  | 0.019  | 19.993                | 20.000  | 0.006  | 19.986                | 20.000  | -0.001 | 19.973          | 20.000  | -0.014 | 19.967   | 20.000  | -0.020 |
|  | MIN | 19.985                | 19.987  | -0.015 | 19.972                | 19.987  | -0.028 | 19.965                | 19.987  | -0.035 | 19.952          | 19.987  | -0.048 | 19.946   | 19.987  | -0.054 |
| 25   | MAX | 25.006                | 25.000  | 0.019  | 24.993                | 25.000  | 0.006  | 24.986                | 25.000  | -0.001 | 24.973          | 25.000  | -0.014 | 24.966   | 25.000  | -0.027 |
|  | MIN | 24.985                | 24.987  | -0.015 | 24.972                | 24.987  | -0.028 | 24.965                | 24.987  | -0.035 | 24.952          | 24.987  | -0.048 | 24.939   | 24.987  | -0.061 |
| 30   | MAX | 30.006                | 30.000  | 0.019  | 29.993                | 30.000  | 0.006  | 29.986                | 30.000  | -0.001 | 29.973          | 30.000  | -0.014 | 29.966   | 30.000  | -0.027 |
|  | MIN | 29.985                | 29.987  | -0.015 | 29.972                | 29.987  | -0.028 | 29.965                | 29.987  | -0.035 | 29.952          | 29.987  | -0.048 | 29.939   | 29.987  | -0.061 |
| 40   | MAX | 40.007                | 40.000  | 0.023  | 39.992                | 40.000  | 0.008  | 39.983                | 40.000  | -0.001 | 39.966          | 40.000  | -0.018 | 39.949   | 40.000  | -0.035 |
|  | MIN | 39.982                | 39.984  | -0.018 | 39.967                | 39.984  | -0.033 | 39.958                | 39.984  | -0.042 | 39.941          | 39.984  | -0.059 | 39.924   | 39.984  | -0.076 |
| 50   | MAX | 50.007                | 50.000  | 0.023  | 49.992                | 50.000  | 0.008  | 49.983                | 50.000  | -0.001 | 49.966          | 50.000  | -0.018 | 49.939   | 50.000  | -0.045 |
|  | MIN | 49.982                | 49.984  | -0.018 | 49.967                | 49.984  | -0.033 | 49.958                | 49.984  | -0.042 | 49.941          | 49.984  | -0.059 | 49.914   | 49.984  | -0.086 |
| 60   | MAX | 60.009                | 60.000  | 0.028  | 59.991                | 60.000  | 0.010  | 59.979                | 60.000  | -0.002 | 59.958          | 60.000  | -0.023 | 59.924   | 60.000  | -0.057 |
|  | MIN | 59.979                | 59.981  | -0.021 | 59.961                | 59.981  | -0.039 | 59.949                | 59.981  | -0.051 | 59.928          | 59.981  | -0.072 | 59.894   | 59.981  | -0.106 |
| 80   | MAX | 80.009                | 80.000  | 0.028  | 79.991                | 80.000  | 0.010  | 79.979                | 80.000  | -0.002 | 79.952          | 80.000  | -0.029 | 79.909   | 80.000  | -0.072 |
|  | MIN | 79.979                | 79.981  | -0.021 | 79.961                | 79.981  | -0.039 | 79.949                | 79.981  | -0.051 | 79.922          | 79.981  | -0.078 | 79.879   | 79.981  | -0.121 |
| 100  | MAX | 100.010               | 100.000 | 0.032  | 99.990                | 100.000 | 0.012  | 99.976                | 100.000 | -0.002 | 99.942          | 100.000 | -0.036 | 99.889   | 100.000 | -0.089 |
|  | MIN | 99.975                | 99.978  | -0.025 | 99.955                | 99.978  | -0.045 | 99.941                | 99.978  | -0.059 | 99.907          | 99.978  | -0.093 | 99.854   | 99.978  | -0.146 |
| 120  | MAX | 120.010               | 120.000 | 0.032  | 119.990               | 120.000 | 0.012  | 119.976               | 120.000 | -0.002 | 119.934         | 120.000 | -0.044 | 119.869  | 120.000 | -0.109 |
|  | MIN | 119.975               | 119.978 | -0.025 | 119.955               | 119.978 | -0.045 | 119.941               | 119.978 | -0.059 | 119.899         | 119.978 | -0.101 | 119.834  | 119.978 | -0.166 |
| 160  | MAX | 160.012               | 160.000 | 0.037  | 159.988               | 160.000 | 0.013  | 159.972               | 160.000 | -0.003 | 159.915         | 160.000 | -0.060 | 159.825  | 160.000 | -0.150 |
|  | MIN | 159.972               | 159.975 | -0.028 | 159.948               | 159.975 | -0.052 | 159.932               | 159.975 | -0.068 | 159.875         | 159.975 | -0.125 | 159.785  | 159.975 | -0.215 |

Table 49 Preferred shaft basis fits. (Dimensions in millimeters.) (continued)