

# 深溝U字溝 流速・流量表 （マンニング公式）

R：径深（m）  
P：潤辺（m）  
V：流速（m/sec）

A：通水断面積（m<sup>2</sup>）（全断面積の80%）  
n：粗度係数（= 0.014）  
Q：流量（m<sup>3</sup>/sec）

## K D S K D R 300×500～1000

| 呼び名                | 300×500 |       | 300×600 |       | 300×700 |       | 300×800 |       | 300×900 |       | 300×1000 |       |
|--------------------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|----------|-------|
| A（m <sup>2</sup> ） | 0.1112  |       | 0.1317  |       | 0.1515  |       | 0.1707  |       | 0.1893  |       | 0.2072   |       |
| P（m）               | 1.0341  |       | 1.1911  |       | 1.3489  |       | 1.5076  |       | 1.6679  |       | 1.8282   |       |
| R（m）               | 0.1076  |       | 0.1106  |       | 0.1123  |       | 0.1132  |       | 0.1135  |       | 0.1133   |       |
| R <sub>%</sub>     | 0.2262  |       | 0.2304  |       | 0.2328  |       | 0.2341  |       | 0.2344  |       | 0.2342   |       |
| （I ‰）              | V       | Q     | V       | Q     | V       | Q     | V       | Q     | V       | Q     | V        | Q     |
| 100.0              | 5.109   | 0.568 | 5.204   | 0.686 | 5.259   | 0.797 | 5.287   | 0.902 | 5.295   | 1.003 | 5.289    | 1.096 |
| 75.0               | 4.425   | 0.492 | 4.507   | 0.594 | 4.555   | 0.690 | 4.578   | 0.782 | 4.586   | 0.868 | 4.581    | 0.949 |
| 50.0               | 3.613   | 0.402 | 3.680   | 0.485 | 3.719   | 0.564 | 3.738   | 0.638 | 3.744   | 0.709 | 3.740    | 0.775 |
| 40.0               | 3.231   | 0.360 | 3.291   | 0.434 | 3.326   | 0.504 | 3.344   | 0.571 | 3.349   | 0.634 | 3.345    | 0.693 |
| 35.0               | 3.023   | 0.336 | 3.079   | 0.406 | 3.111   | 0.472 | 3.128   | 0.534 | 3.133   | 0.593 | 3.129    | 0.648 |
| 30.0               | 2.799   | 0.311 | 2.850   | 0.375 | 2.881   | 0.437 | 2.896   | 0.494 | 2.900   | 0.549 | 2.897    | 0.600 |
| 25.0               | 2.555   | 0.284 | 2.602   | 0.343 | 2.630   | 0.399 | 2.643   | 0.451 | 2.648   | 0.501 | 2.645    | 0.548 |
| 20.0               | 2.285   | 0.254 | 2.327   | 0.307 | 2.352   | 0.356 | 2.364   | 0.404 | 2.368   | 0.448 | 2.366    | 0.490 |
| 18.0               | 2.168   | 0.241 | 2.208   | 0.291 | 2.231   | 0.338 | 2.243   | 0.383 | 2.247   | 0.425 | 2.244    | 0.465 |
| 16.0               | 2.044   | 0.227 | 2.082   | 0.274 | 2.104   | 0.319 | 2.115   | 0.361 | 2.118   | 0.401 | 2.116    | 0.438 |
| 14.0               | 1.912   | 0.213 | 1.947   | 0.257 | 1.968   | 0.298 | 1.978   | 0.338 | 1.981   | 0.375 | 1.979    | 0.410 |
| 12.0               | 1.770   | 0.197 | 1.803   | 0.237 | 1.822   | 0.276 | 1.831   | 0.313 | 1.834   | 0.347 | 1.832    | 0.380 |
| 10.0               | 1.616   | 0.180 | 1.646   | 0.217 | 1.663   | 0.252 | 1.672   | 0.285 | 1.675   | 0.317 | 1.673    | 0.347 |
| 9.0                | 1.533   | 0.171 | 1.561   | 0.206 | 1.578   | 0.239 | 1.586   | 0.271 | 1.589   | 0.301 | 1.587    | 0.329 |
| 8.0                | 1.445   | 0.161 | 1.472   | 0.194 | 1.487   | 0.225 | 1.495   | 0.255 | 1.498   | 0.284 | 1.496    | 0.310 |
| 7.0                | 1.352   | 0.150 | 1.377   | 0.181 | 1.391   | 0.211 | 1.399   | 0.239 | 1.401   | 0.265 | 1.399    | 0.290 |
| 6.0                | 1.252   | 0.139 | 1.275   | 0.168 | 1.288   | 0.195 | 1.295   | 0.221 | 1.297   | 0.246 | 1.296    | 0.268 |
| 5.5                | 1.198   | 0.133 | 1.221   | 0.161 | 1.233   | 0.187 | 1.240   | 0.212 | 1.242   | 0.235 | 1.240    | 0.257 |
| 5.0                | 1.142   | 0.127 | 1.164   | 0.153 | 1.176   | 0.178 | 1.182   | 0.202 | 1.184   | 0.224 | 1.183    | 0.245 |
| 4.8                | 1.119   | 0.125 | 1.140   | 0.150 | 1.152   | 0.175 | 1.158   | 0.198 | 1.160   | 0.220 | 1.159    | 0.240 |
| 4.6                | 1.096   | 0.122 | 1.116   | 0.147 | 1.128   | 0.171 | 1.134   | 0.194 | 1.136   | 0.215 | 1.134    | 0.235 |
| 4.5                | 1.084   | 0.121 | 1.104   | 0.145 | 1.116   | 0.169 | 1.121   | 0.191 | 1.123   | 0.213 | 1.122    | 0.232 |
| 4.4                | 1.072   | 0.119 | 1.092   | 0.144 | 1.103   | 0.167 | 1.109   | 0.189 | 1.111   | 0.210 | 1.110    | 0.230 |
| 4.2                | 1.047   | 0.116 | 1.067   | 0.140 | 1.078   | 0.163 | 1.083   | 0.185 | 1.085   | 0.205 | 1.084    | 0.225 |
| 4.0                | 1.022   | 0.114 | 1.041   | 0.137 | 1.052   | 0.159 | 1.057   | 0.180 | 1.059   | 0.201 | 1.058    | 0.219 |
| 3.8                | 0.996   | 0.111 | 1.014   | 0.134 | 1.025   | 0.155 | 1.031   | 0.176 | 1.032   | 0.195 | 1.031    | 0.214 |
| 3.5                | 0.956   | 0.106 | 0.974   | 0.128 | 0.984   | 0.149 | 0.989   | 0.169 | 0.991   | 0.188 | 0.990    | 0.205 |
| 3.4                | 0.942   | 0.105 | 0.960   | 0.126 | 0.970   | 0.147 | 0.975   | 0.166 | 0.976   | 0.185 | 0.975    | 0.202 |
| 3.0                | 0.855   | 0.098 | 0.901   | 0.119 | 0.911   | 0.138 | 0.916   | 0.156 | 0.917   | 0.174 | 0.916    | 0.190 |
| 2.8                | 0.855   | 0.095 | 0.871   | 0.115 | 0.880   | 0.133 | 0.885   | 0.151 | 0.886   | 0.168 | 0.885    | 0.183 |
| 2.6                | 0.824   | 0.092 | 0.839   | 0.111 | 0.848   | 0.129 | 0.852   | 0.146 | 0.854   | 0.162 | 0.853    | 0.177 |
| 2.5                | 0.808   | 0.090 | 0.823   | 0.108 | 0.832   | 0.126 | 0.836   | 0.143 | 0.837   | 0.159 | 0.836    | 0.173 |
| 2.4                | 0.792   | 0.088 | 0.806   | 0.106 | 0.815   | 0.123 | 0.819   | 0.140 | 0.820   | 0.155 | 0.819    | 0.170 |
| 2.2                | 0.758   | 0.084 | 0.772   | 0.102 | 0.780   | 0.118 | 0.784   | 0.134 | 0.785   | 0.149 | 0.785    | 0.163 |
| 2.0                | 0.723   | 0.080 | 0.736   | 0.097 | 0.744   | 0.113 | 0.748   | 0.128 | 0.749   | 0.142 | 0.748    | 0.155 |

## K D S K D R 400×600～1000

| 呼び名                | 400×600 |       | 400×700 |       | 400×800 |       | 400×900 |       | 400×1000 |       |
|--------------------|---------|-------|---------|-------|---------|-------|---------|-------|----------|-------|
| A（m <sup>2</sup> ） | 0.1790  |       | 0.2068  |       | 0.2340  |       | 0.2606  |       | 0.2865   |       |
| P（m）               | 1.2719  |       | 1.4281  |       | 1.5855  |       | 1.7438  |       | 1.9020   |       |
| R（m）               | 0.1407  |       | 0.1448  |       | 0.1476  |       | 0.1495  |       | 0.1506   |       |
| R <sub>%</sub>     | 0.2705  |       | 0.2757  |       | 0.2793  |       | 0.2816  |       | 0.2831   |       |
| （I ‰）              | V       | Q     | V       | Q     | V       | Q     | V       | Q     | V        | Q     |
| 100.0              | 6.110   | 1.094 | 6.228   | 1.288 | 6.308   | 1.476 | 6.362   | 1.658 | 6.395    | 1.832 |
| 75.0               | 5.292   | 0.947 | 5.393   | 1.115 | 5.463   | 1.278 | 5.509   | 1.436 | 5.538    | 1.587 |
| 50.0               | 4.321   | 0.773 | 4.404   | 0.910 | 4.461   | 1.044 | 4.498   | 1.172 | 4.522    | 1.295 |
| 40.0               | 3.865   | 0.692 | 3.939   | 0.814 | 3.990   | 0.934 | 4.024   | 1.049 | 4.044    | 1.159 |
| 35.0               | 3.615   | 0.647 | 3.684   | 0.762 | 3.732   | 0.873 | 3.764   | 0.981 | 3.783    | 1.084 |
| 30.0               | 3.347   | 0.599 | 3.411   | 0.705 | 3.455   | 0.809 | 3.484   | 0.908 | 3.502    | 1.003 |
| 25.0               | 3.055   | 0.547 | 3.114   | 0.644 | 3.154   | 0.738 | 3.181   | 0.829 | 3.197    | 0.916 |
| 20.0               | 2.733   | 0.489 | 2.785   | 0.576 | 2.821   | 0.660 | 2.845   | 0.742 | 2.860    | 0.819 |
| 18.0               | 2.592   | 0.464 | 2.642   | 0.546 | 2.676   | 0.626 | 2.699   | 0.703 | 2.713    | 0.777 |
| 16.0               | 2.444   | 0.437 | 2.491   | 0.515 | 2.523   | 0.590 | 2.545   | 0.663 | 2.558    | 0.733 |
| 14.0               | 2.286   | 0.409 | 2.330   | 0.482 | 2.360   | 0.552 | 2.380   | 0.620 | 2.393    | 0.685 |
| 12.0               | 2.117   | 0.379 | 2.157   | 0.446 | 2.185   | 0.511 | 2.204   | 0.574 | 2.215    | 0.635 |
| 10.0               | 1.932   | 0.346 | 1.969   | 0.407 | 1.995   | 0.467 | 2.012   | 0.524 | 2.022    | 0.579 |
| 9.0                | 1.833   | 0.328 | 1.868   | 0.386 | 1.892   | 0.443 | 1.909   | 0.497 | 1.918    | 0.550 |
| 8.0                | 1.728   | 0.309 | 1.761   | 0.364 | 1.784   | 0.418 | 1.799   | 0.469 | 1.809    | 0.518 |
| 7.0                | 1.617   | 0.289 | 1.648   | 0.341 | 1.669   | 0.391 | 1.683   | 0.439 | 1.692    | 0.485 |
| 6.0                | 1.497   | 0.268 | 1.525   | 0.315 | 1.545   | 0.362 | 1.558   | 0.406 | 1.566    | 0.449 |
| 5.5                | 1.433   | 0.256 | 1.461   | 0.302 | 1.479   | 0.346 | 1.492   | 0.389 | 1.500    | 0.430 |
| 5.0                | 1.366   | 0.245 | 1.393   | 0.288 | 1.411   | 0.330 | 1.423   | 0.371 | 1.430    | 0.410 |
| 4.8                | 1.339   | 0.240 | 1.364   | 0.282 | 1.382   | 0.323 | 1.394   | 0.363 | 1.401    | 0.401 |
| 4.6                | 1.311   | 0.235 | 1.336   | 0.276 | 1.353   | 0.317 | 1.364   | 0.356 | 1.371    | 0.393 |
| 4.5                | 1.296   | 0.232 | 1.321   | 0.273 | 1.338   | 0.313 | 1.350   | 0.352 | 1.356    | 0.389 |
| 4.4                | 1.282   | 0.229 | 1.306   | 0.270 | 1.323   | 0.310 | 1.334   | 0.348 | 1.341    | 0.384 |
| 4.2                | 1.252   | 0.224 | 1.276   | 0.264 | 1.293   | 0.303 | 1.304   | 0.340 | 1.310    | 0.375 |
| 4.0                | 1.222   | 0.219 | 1.246   | 0.258 | 1.262   | 0.295 | 1.272   | 0.332 | 1.279    | 0.366 |
| 3.8                | 1.191   | 0.213 | 1.214   | 0.251 | 1.230   | 0.288 | 1.240   | 0.323 | 1.247    | 0.357 |
| 3.5                | 1.143   | 0.205 | 1.165   | 0.241 | 1.180   | 0.276 | 1.190   | 0.310 | 1.196    | 0.343 |
| 3.4                | 1.127   | 0.202 | 1.148   | 0.237 | 1.163   | 0.272 | 1.173   | 0.306 | 1.179    | 0.338 |
| 3.0                | 1.058   | 0.189 | 1.079   | 0.223 | 1.093   | 0.256 | 1.102   | 0.287 | 1.108    | 0.317 |
| 2.8                | 1.022   | 0.183 | 1.042   | 0.215 | 1.056   | 0.247 | 1.065   | 0.277 | 1.070    | 0.307 |
| 2.6                | 0.985   | 0.176 | 1.004   | 0.208 | 1.017   | 0.238 | 1.026   | 0.267 | 1.031    | 0.295 |
| 2.5                | 0.966   | 0.173 | 0.985   | 0.204 | 0.997   | 0.233 | 1.006   | 0.262 | 1.011    | 0.290 |
| 2.4                | 0.947   | 0.169 | 0.965   | 0.199 | 0.977   | 0.229 | 0.986   | 0.257 | 0.991    | 0.284 |
| 2.2                | 0.906   | 0.162 | 0.924   | 0.191 | 0.936   | 0.219 | 0.944   | 0.246 | 0.948    | 0.272 |
| 2.0                | 0.864   | 0.155 | 0.881   | 0.182 | 0.892   | 0.209 | 0.900   | 0.234 | 0.904    | 0.259 |

深溝U字溝参考歩掛表

| 10m当り |          |                    |              |                     |                     |                               |            |
|-------|----------|--------------------|--------------|---------------------|---------------------|-------------------------------|------------|
| 種 類   | 呼 び 名    | 参 考<br>質 量<br>(Kg) | 世 話 役<br>(人) | 特 殊<br>作 業 員<br>(人) | 普 通<br>作 業 員<br>(人) | トラッククレーン<br>4. 8～4. 9t<br>(日) | 諸費用<br>(%) |
| K D S | 300× 500 | 598                | 0. 2         | 0. 2                | 0. 5                | 0. 2                          | 9          |
|       | 600      | 662                |              |                     | 0. 8                |                               |            |
|       | 700      | 753                |              |                     |                     |                               |            |
|       | 800      | 845                |              |                     |                     |                               |            |
|       | 900      | 941                |              |                     |                     |                               |            |
|       | 1000     | 1043               | 0. 3         | 0. 3                | 0. 3                |                               |            |
|       | 400× 600 | 726                | 0. 2         | 0. 2                | 0. 2                |                               |            |
|       | 700      | 821                |              |                     |                     |                               |            |
|       | 800      | 919                |              |                     |                     |                               |            |
|       | 900      | 1020               |              |                     |                     |                               |            |
| 1000  | 1127     |                    |              |                     |                     |                               |            |
| K D R | 300× 500 | 889                | 0. 2         | 0. 2                | 0. 8                | 0. 2                          | 9          |
|       | 600      | 969                |              |                     |                     |                               |            |
|       | 700      | 1066               |              | 0. 3                |                     | 0. 3                          |            |
|       | 800      | 1160               |              |                     |                     |                               |            |
|       | 900      | 1283               |              |                     |                     |                               |            |
|       | 1000     | 1445               |              |                     |                     |                               |            |
|       | 400× 600 | 1077               | 0. 3         | 0. 3                |                     | 0. 3                          |            |
|       | 700      | 1179               |              |                     |                     |                               |            |
|       | 800      | 1278               |              |                     |                     |                               |            |
|       | 900      | 1409               |              |                     |                     |                               |            |
| 1000  | 1580     | 1. 1               |              |                     |                     |                               |            |



注(1) 本歩掛は、運搬距離30m程度までの小運搬を含む据え付け作業で、  
床掘り、基礎、ふた据え付け及び埋め戻しは含みません。  
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