



# MU暗渠側溝

## (暗渠型側溝)

暗渠型側溝は、側溝本体と蓋板を一体化した製品で、車両通行時のガタツキ音が発生しません。



### [特 徴]

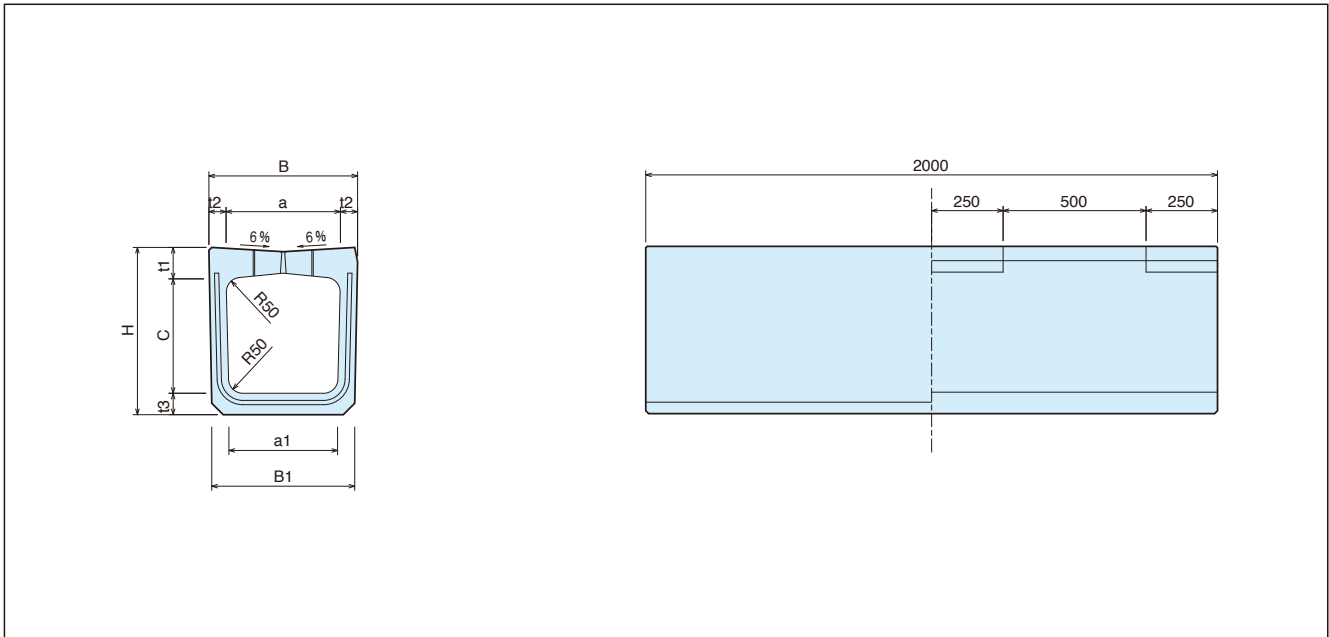
- JIS側溝と連続性を持たせた流水断面となっており、大きな流量にも対応できます。
- 側溝本体と蓋板を一体化したものであり、車両通行時のガタツキは発生しません。
- 管理用の柵付型も用意しております。

### [設計条件]

|      |                       |
|------|-----------------------|
| 設計荷重 | T-25 (縦断・横断に対応しています。) |
|------|-----------------------|



[形状図(縦断用)]

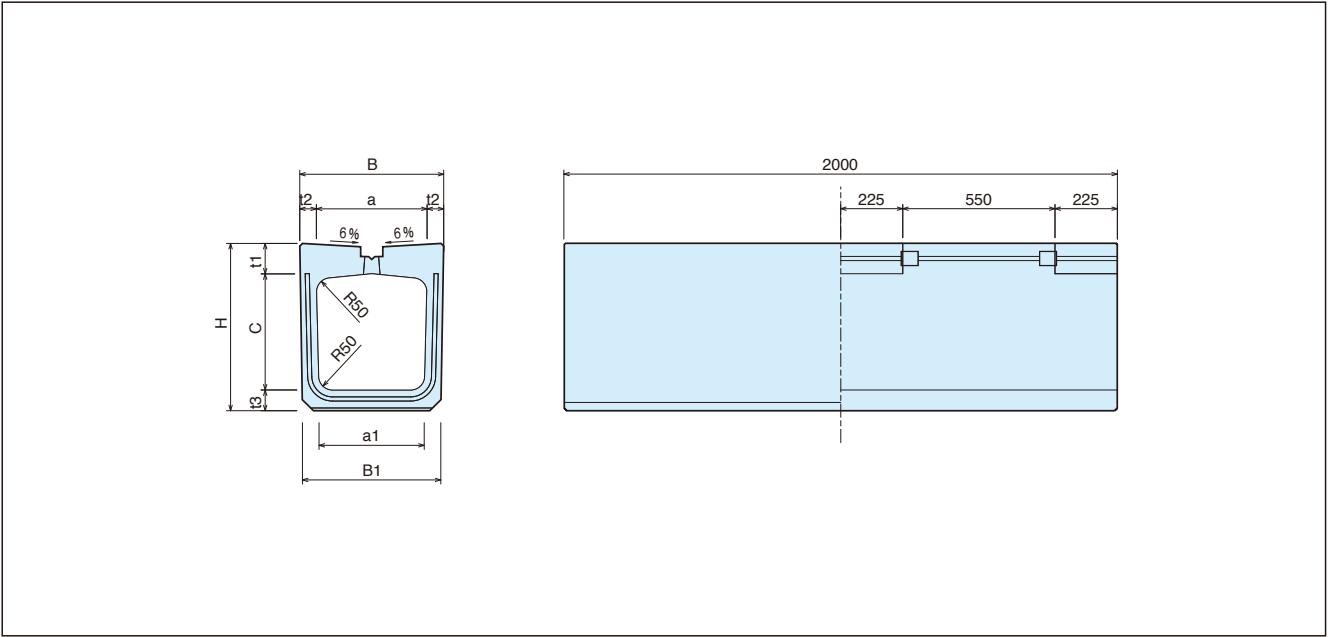


[規格表]

| 呼び名     | 形状寸法 (mm) |     |     |     |     |     |     |    |    | 参考質量 (Kg) |
|---------|-----------|-----|-----|-----|-----|-----|-----|----|----|-----------|
|         | B         | B1  | H   | a   | a1  | c   | t1  | t2 | t3 |           |
| 300×300 | 420       | 400 | 465 | 300 | 280 | 300 | 95  | 60 | 70 | 480       |
| 300×400 | 420       | 400 | 565 | 300 | 270 | 400 | 95  | 60 | 70 | 545       |
| 300×500 | 420       | 400 | 665 | 300 | 260 | 500 | 95  | 60 | 70 | 620       |
| 400×400 | 520       | 500 | 585 | 400 | 380 | 400 | 110 | 60 | 75 | 645       |
| 400×500 | 520       | 500 | 685 | 400 | 370 | 500 | 110 | 60 | 75 | 715       |
| 500×500 | 620       | 600 | 770 | 500 | 460 | 500 | 175 | 60 | 95 | 915       |
| 500×600 | 620       | 600 | 820 | 500 | 450 | 600 | 175 | 60 | 95 | 990       |



[形状図 縦断用グレーチング付]

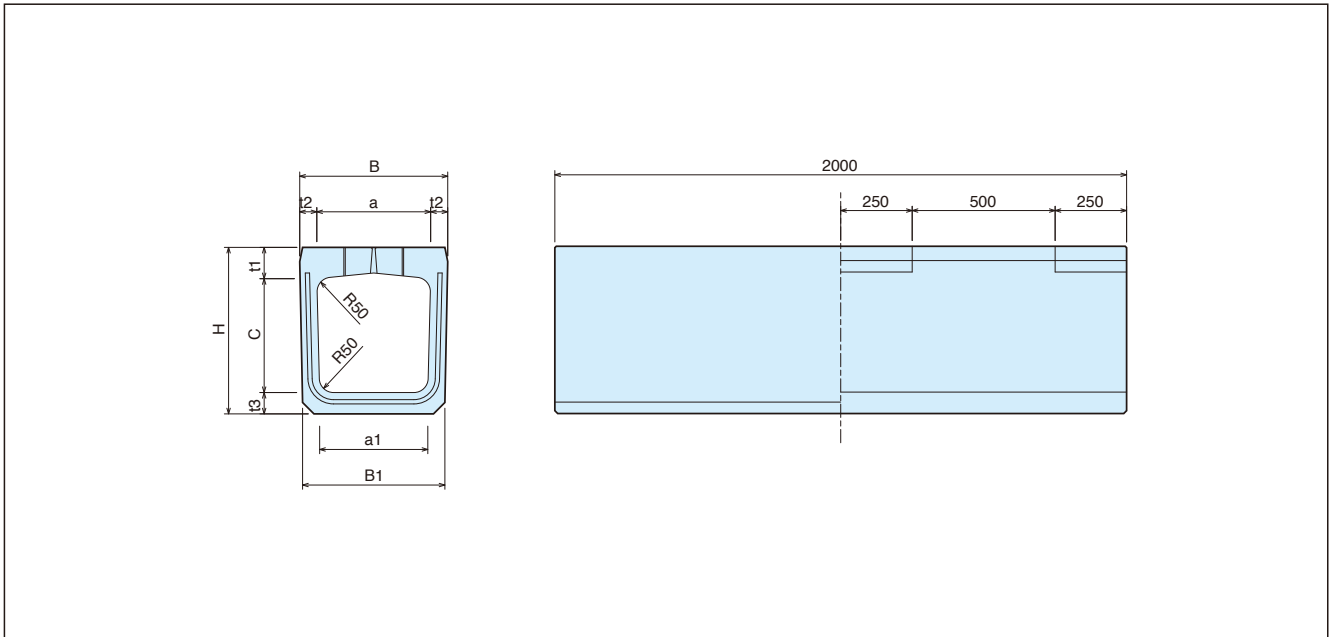


[規格表]

| 呼び名     | 形状寸法(mm) |     |     |     |     |     |     |    |    | 参考質量<br>(Kg) |
|---------|----------|-----|-----|-----|-----|-----|-----|----|----|--------------|
|         | B        | B1  | H   | a   | a1  | c   | t1  | t2 | t3 |              |
| 300×300 | 420      | 400 | 485 | 300 | 280 | 300 | 102 | 60 | 70 | 498          |
| 300×400 | 420      | 400 | 585 | 300 | 270 | 400 | 102 | 60 | 70 | 554          |
| 300×500 | 420      | 400 | 665 | 300 | 260 | 500 | 102 | 60 | 70 | 626          |
| 400×400 | 520      | 500 | 605 | 400 | 380 | 400 | 110 | 60 | 75 | 673          |



[形状図(横断用)]



[規格表]

| 呼び名     | 形状寸法 (mm) |     |     |     |     |     |     |    |    | 参考質量 (Kg) |
|---------|-----------|-----|-----|-----|-----|-----|-----|----|----|-----------|
|         | B         | B1  | H   | a   | a1  | c   | t1  | t2 | t3 |           |
| 300×300 | 420       | 400 | 465 | 300 | 280 | 300 | 95  | 60 | 70 | 490       |
| 300×400 | 420       | 400 | 565 | 300 | 270 | 400 | 95  | 60 | 70 | 560       |
| 300×500 | 420       | 400 | 665 | 300 | 260 | 500 | 95  | 60 | 70 | 630       |
| 400×400 | 520       | 500 | 585 | 400 | 380 | 400 | 110 | 60 | 75 | 665       |
| 400×500 | 520       | 500 | 685 | 400 | 370 | 500 | 110 | 60 | 75 | 730       |
| 500×500 | 620       | 600 | 720 | 500 | 460 | 500 | 125 | 60 | 95 | 940       |
| 500×600 | 620       | 600 | 820 | 500 | 450 | 600 | 125 | 60 | 95 | 1,020     |

# [流量表]

マンニング公式:  $V = \frac{1}{n} \cdot R^{\frac{2}{3}} \cdot I^{\frac{1}{2}}$  (m/s)、 $Q = A \cdot V$  (m<sup>3</sup>/s)  $n$  (粗度係数) = 0.013

| 呼び名                     | 300×300 |       | 300×400 |       | 300×500 |       | 400×400 |       |
|-------------------------|---------|-------|---------|-------|---------|-------|---------|-------|
| 通水断面 (mm)               |         |       |         |       |         |       |         |       |
| 水路高                     | 300     |       | 400     |       | 500     |       | 400     |       |
| 8割水深 (m)                | 0.24    |       | 0.32    |       | 0.40    |       | 0.32    |       |
| 通水断面積 (m <sup>2</sup> ) | 0.0681  |       | 0.0893  |       | 0.1094  |       | 0.1213  |       |
| 潤辺S (m)                 | 0.7206  |       | 0.8935  |       | 1.0216  |       | 0.9711  |       |
| 径深R (m)                 | 0.0945  |       | 0.0999  |       | 0.1071  |       | 0.1249  |       |
| 勾配 $\backslash$ V・Q     | V       | Q     | V       | Q     | V       | Q     | V       | Q     |
| 50.0                    | 3.569   | 0.243 | 3.703   | 0.331 | 3.879   | 0.424 | 4.298   | 0.521 |
| 45.0                    | 3.385   | 0.231 | 3.513   | 0.314 | 3.680   | 0.403 | 4.077   | 0.495 |
| 40.0                    | 3.192   | 0.217 | 3.312   | 0.296 | 3.470   | 0.380 | 3.844   | 0.466 |
| 35.0                    | 2.986   | 0.203 | 3.098   | 0.277 | 3.246   | 0.355 | 3.596   | 0.436 |
| 30.0                    | 2.764   | 0.188 | 2.869   | 0.256 | 3.005   | 0.329 | 3.329   | 0.404 |
| 25.0                    | 2.523   | 0.172 | 2.619   | 0.234 | 2.743   | 0.300 | 3.039   | 0.369 |
| 20.0                    | 2.257   | 0.154 | 2.342   | 0.209 | 2.453   | 0.268 | 2.718   | 0.330 |
| 19.0                    | 2.200   | 0.150 | 2.283   | 0.204 | 2.391   | 0.262 | 2.649   | 0.321 |
| 18.0                    | 2.141   | 0.146 | 2.222   | 0.198 | 2.327   | 0.255 | 2.579   | 0.313 |
| 17.0                    | 2.081   | 0.142 | 2.159   | 0.193 | 2.262   | 0.247 | 2.506   | 0.304 |
| 16.0                    | 2.019   | 0.137 | 2.095   | 0.187 | 2.194   | 0.240 | 2.431   | 0.295 |
| 15.0                    | 1.955   | 0.133 | 2.028   | 0.181 | 2.125   | 0.232 | 2.354   | 0.286 |
| 14.0                    | 1.888   | 0.129 | 1.960   | 0.175 | 2.053   | 0.225 | 2.274   | 0.276 |
| 13.0                    | 1.820   | 0.124 | 1.888   | 0.169 | 1.978   | 0.216 | 2.191   | 0.266 |
| 12.0                    | 1.748   | 0.119 | 1.814   | 0.162 | 1.900   | 0.208 | 2.106   | 0.255 |
| 11.0                    | 1.674   | 0.114 | 1.737   | 0.155 | 1.819   | 0.199 | 2.016   | 0.245 |
| 10.0                    | 1.596   | 0.109 | 1.656   | 0.148 | 1.735   | 0.190 | 1.922   | 0.233 |
| 9.5                     | 1.556   | 0.106 | 1.614   | 0.144 | 1.691   | 0.185 | 1.873   | 0.227 |
| 9.0                     | 1.514   | 0.103 | 1.571   | 0.140 | 1.646   | 0.180 | 1.823   | 0.221 |
| 8.5                     | 1.471   | 0.100 | 1.527   | 0.136 | 1.599   | 0.175 | 1.772   | 0.215 |
| 8.0                     | 1.427   | 0.097 | 1.481   | 0.132 | 1.552   | 0.170 | 1.719   | 0.209 |
| 7.5                     | 1.382   | 0.094 | 1.434   | 0.128 | 1.502   | 0.164 | 1.665   | 0.202 |
| 7.0                     | 1.335   | 0.091 | 1.386   | 0.124 | 1.451   | 0.159 | 1.608   | 0.195 |
| 6.5                     | 1.287   | 0.088 | 1.335   | 0.119 | 1.399   | 0.153 | 1.550   | 0.188 |
| 6.0                     | 1.236   | 0.084 | 1.283   | 0.115 | 1.344   | 0.147 | 1.489   | 0.181 |
| 5.5                     | 1.184   | 0.081 | 1.228   | 0.110 | 1.287   | 0.141 | 1.425   | 0.173 |
| 5.0                     | 1.128   | 0.077 | 1.171   | 0.105 | 1.227   | 0.134 | 1.359   | 0.165 |
| 4.5                     | 1.071   | 0.073 | 1.111   | 0.099 | 1.164   | 0.127 | 1.289   | 0.156 |
| 4.0                     | 1.009   | 0.069 | 1.047   | 0.093 | 1.097   | 0.120 | 1.216   | 0.148 |
| 3.5                     | 0.944   | 0.064 | 0.980   | 0.088 | 1.026   | 0.112 | 1.137   | 0.138 |
| 3.0                     | 0.874   | 0.060 | 0.907   | 0.081 | 0.950   | 0.104 | 1.053   | 0.128 |
| 2.5                     | 0.798   | 0.054 | 0.828   | 0.074 | 0.867   | 0.095 | 0.961   | 0.117 |
| 2.0                     | 0.714   | 0.049 | 0.741   | 0.066 | 0.776   | 0.085 | 0.860   | 0.104 |
| 1.5                     | 0.618   | 0.042 | 0.641   | 0.057 | 0.672   | 0.074 | 0.744   | 0.090 |
| 1.0                     | 0.505   | 0.034 | 0.524   | 0.047 | 0.549   | 0.060 | 0.608   | 0.074 |



| 呼び名                    | 400×500 |       | 500×500 |       | 500×600 |       |
|------------------------|---------|-------|---------|-------|---------|-------|
| 通水断面(mm)               |         |       |         |       |         |       |
| 水路高                    | 500     |       | 500     |       | 600     |       |
| 8割水深(m)                | 0.40    |       | 0.40    |       | 0.48    |       |
| 通水断面積(m <sup>2</sup> ) | 0.1494  |       | 0.1894  |       | 0.2246  |       |
| 潤辺S(m)                 | 0.1216  |       | 1.1215  |       | 1.3719  |       |
| 径深R(m)                 | 0.1332  |       | 0.1689  |       | 0.1637  |       |
| 勾配                     | V・Q     |       | V・Q     |       | V・Q     |       |
|                        | V       | Q     | V       | Q     | V       | Q     |
| 50.0                   | 4.486   | 0.670 | 5.256   | 0.995 | 5.147   | 1.156 |
| 45.0                   | 4.256   | 0.636 | 4.986   | 0.944 | 4.883   | 1.097 |
| 40.0                   | 4.013   | 0.600 | 4.701   | 0.890 | 4.604   | 1.034 |
| 35.0                   | 3.753   | 0.561 | 4.397   | 0.833 | 4.306   | 0.967 |
| 30.0                   | 3.475   | 0.519 | 4.071   | 0.771 | 3.987   | 0.895 |
| 25.0                   | 3.172   | 0.474 | 3.716   | 0.704 | 3.640   | 0.818 |
| 20.0                   | 2.837   | 0.424 | 3.324   | 0.630 | 3.255   | 0.731 |
| 19.0                   | 2.765   | 0.413 | 3.240   | 0.614 | 3.173   | 0.713 |
| 18.0                   | 2.692   | 0.402 | 3.153   | 0.597 | 3.088   | 0.694 |
| 17.0                   | 2.616   | 0.391 | 3.065   | 0.581 | 3.001   | 0.674 |
| 16.0                   | 2.538   | 0.379 | 2.973   | 0.563 | 2.912   | 0.654 |
| 15.0                   | 2.457   | 0.367 | 2.879   | 0.545 | 2.819   | 0.633 |
| 14.0                   | 2.374   | 0.355 | 2.781   | 0.527 | 2.724   | 0.612 |
| 13.0                   | 2.288   | 0.342 | 2.680   | 0.508 | 2.625   | 0.590 |
| 12.0                   | 2.198   | 0.328 | 2.575   | 0.488 | 2.522   | 0.566 |
| 11.0                   | 2.104   | 0.314 | 2.465   | 0.467 | 2.414   | 0.542 |
| 10.0                   | 2.006   | 0.300 | 2.350   | 0.445 | 2.302   | 0.517 |
| 9.5                    | 1.955   | 0.292 | 2.291   | 0.434 | 2.244   | 0.504 |
| 9.0                    | 1.903   | 0.284 | 2.230   | 0.422 | 2.184   | 0.491 |
| 8.5                    | 1.850   | 0.276 | 2.167   | 0.410 | 2.122   | 0.477 |
| 8.0                    | 1.794   | 0.268 | 2.102   | 0.398 | 2.059   | 0.462 |
| 7.5                    | 1.737   | 0.260 | 2.036   | 0.386 | 1.994   | 0.448 |
| 7.0                    | 1.679   | 0.251 | 1.966   | 0.372 | 1.926   | 0.433 |
| 6.5                    | 1.618   | 0.242 | 1.895   | 0.359 | 1.856   | 0.417 |
| 6.0                    | 1.554   | 0.232 | 1.821   | 0.345 | 1.783   | 0.400 |
| 5.5                    | 1.488   | 0.222 | 1.743   | 0.330 | 1.707   | 0.383 |
| 5.0                    | 1.419   | 0.212 | 1.662   | 0.315 | 1.628   | 0.366 |
| 4.5                    | 1.346   | 0.201 | 1.577   | 0.299 | 1.544   | 0.347 |
| 4.0                    | 1.269   | 0.190 | 1.487   | 0.282 | 1.456   | 0.327 |
| 3.5                    | 1.187   | 0.177 | 1.391   | 0.263 | 1.362   | 0.306 |
| 3.0                    | 1.099   | 0.164 | 1.287   | 0.244 | 1.261   | 0.283 |
| 2.5                    | 1.003   | 0.150 | 1.175   | 0.223 | 1.151   | 0.259 |
| 2.0                    | 0.897   | 0.134 | 1.051   | 0.199 | 1.029   | 0.231 |
| 1.5                    | 0.777   | 0.116 | 0.910   | 0.172 | 0.892   | 0.200 |
| 1.0                    | 0.634   | 0.095 | 0.743   | 0.141 | 0.728   | 0.164 |