

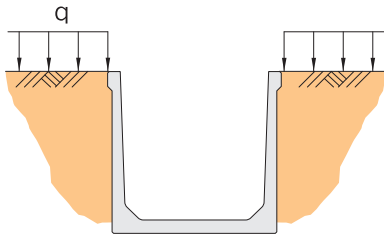
大型フリーム

製品名称：KUフリーム

- 豊富なサイズがあり、流量に合った断面を選択していただけます。
- 軽量で経済的な三面水路です。

設計条件

① 載荷重 $q=10\text{kN/m}^2$



② 土質条件、その他

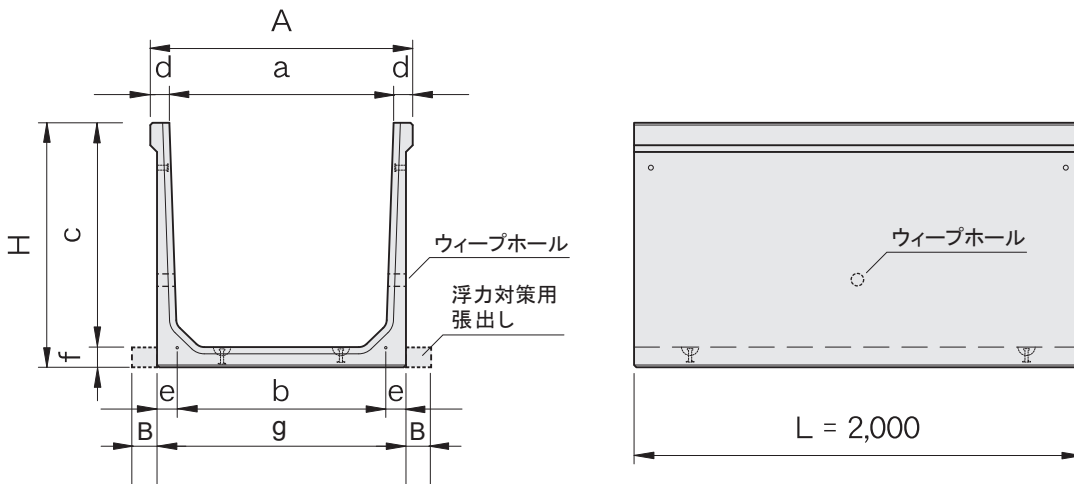
- ・ 土の単位体積重量 $\gamma_d = 18\text{kN/m}^3$
- ・ 土の内部摩擦角 $\phi = 30^\circ$
- ・ 土圧係数 $K_a = 0.333$
- ・ 鉄筋コンクリートの単位体積重量 $\gamma_c = 24.5\text{kN/m}^3$

③ 許容応力度（長期）

- ・ コンクリート
 - 設計基準強度 $\sigma_{ck} = 30\text{N/mm}^2$
 - 許容曲げ圧縮応力度 $\sigma_{ca} = 11\text{N/mm}^2$
 - 許容せん断応力度 $\tau_{ca} = 0.5\text{N/mm}^2$
- ・ 鉄筋
 - 許容引張応力度 (SD295) $\sigma_{sa} = 176\text{N/mm}^2$
 - 許容引張応力度 (SD345) $\sigma_{sa} = 196\text{N/mm}^2$
 - ヤング係数比 $n = 15$

上記設計条件以外は別途ご相談ください。

断面形状



※ 地下水位による浮上り対策として、底版部からの張出しやウィープホールの有無を検討します。

| 呼び名 (内幅×内高) | 形状寸法(mm) | | | | | | | | | | 製品質量 (kg/本) |
|----------------|----------|-------|-------|----|-----|-----|-------|-------|-------|---------|----------------|
| | a | b | c | d | e | f | g | A | H | B | |
| KU-100×100 | 1,000 | 930 | 1,000 | 85 | 90 | 90 | 1,110 | 1,170 | 1,090 | 100 | 1,307 |
| KU-100×120 | | 910 | 1,200 | 85 | 100 | 105 | 1,110 | 1,170 | 1,305 | | 1,595 |
| KU-100×140 | | 900 | 1,400 | 90 | 110 | 115 | 1,120 | 1,180 | 1,515 | | 1,980 ● |
| KU-110×100 | 1,100 | 1,030 | 1,000 | 85 | 90 | 90 | 1,210 | 1,270 | 1,090 | | 1,352 |
| KU-110×120 | | 1,010 | 1,200 | 85 | 100 | 105 | 1,210 | 1,270 | 1,305 | | 1,648 |
| KU-110×140 | | 1,000 | 1,400 | 90 | 110 | 115 | 1,220 | 1,280 | 1,515 | | 2,038 ● |
| KU-120×100 | 1,200 | 1,130 | 1,000 | 85 | 90 | 90 | 1,310 | 1,370 | 1,090 | | 1,397 |
| KU-120×120 | | 1,110 | 1,200 | 85 | 100 | 105 | 1,310 | 1,370 | 1,305 | | 1,700 |
| KU-120×140 | | 1,100 | 1,400 | 90 | 110 | 115 | 1,320 | 1,380 | 1,515 | | 2,095 ● |
| KU-130×100 | 1,300 | 1,230 | 1,000 | 85 | 90 | 90 | 1,410 | 1,470 | 1,090 | | 1,442 |
| KU-130×120 | | 1,210 | 1,200 | 85 | 100 | 105 | 1,410 | 1,470 | 1,305 | 1,753 | |
| KU-130×140 | | 1,200 | 1,400 | 90 | 110 | 115 | 1,420 | 1,480 | 1,515 | 2,153 ● | |



| 呼び名 (内幅×内高) | 形状寸法(mm) | | | | | | | | | | 製品質量 (kg/本) |
|----------------|----------|-------|-------|-----|-----|-------|-------|-------|-------|---------|----------------|
| | a | b | c | d | e | f | g | A | H | B | |
| KU-140×100 | 1,400 | 1,330 | 1,000 | 85 | 90 | 90 | 1,510 | 1,570 | 1,090 | 150 | 1,487 |
| KU-140×120 | | 1,310 | 1,200 | 85 | 100 | 105 | 1,510 | 1,570 | 1,305 | | 1,805 |
| KU-140×140 | | 1,300 | 1,400 | 90 | 110 | 115 | 1,520 | 1,580 | 1,515 | | 2,210 ● |
| KU-150×100 | 1,500 | 1,430 | 1,000 | 85 | 90 | 100 | 1,610 | 1,670 | 1,100 | | 1,612 |
| KU-150×120 | | 1,410 | 1,200 | 85 | 100 | 105 | 1,610 | 1,670 | 1,305 | | 1,858 |
| KU-150×140 | | 1,400 | 1,400 | 90 | 110 | 115 | 1,620 | 1,680 | 1,515 | | 2,268 ● |
| KU-150×150 | | 1,390 | 1,500 | 90 | 115 | 120 | 1,620 | 1,680 | 1,620 | | 2,429 |
| KU-150×160 | | 1,390 | 1,600 | 95 | 120 | 125 | 1,630 | 1,690 | 1,725 | | 2,644 ● |
| KU-150×180 | | 1,370 | 1,800 | 95 | 130 | 135 | 1,630 | 1,690 | 1,935 | | 3,002 |
| KU-150×200 | 1,360 | 2,000 | 95 | 135 | 140 | 1,630 | 1,690 | 2,140 | 3,373 | | |
| KU-160×100 | 1,600 | 1,530 | 1,000 | 85 | 90 | 100 | 1,710 | 1,770 | 1,100 | | 1,662 |
| KU-160×120 | | 1,510 | 1,200 | 85 | 100 | 105 | 1,710 | 1,770 | 1,305 | | 1,910 |
| KU-160×140 | | 1,500 | 1,400 | 90 | 110 | 115 | 1,720 | 1,780 | 1,515 | 2,325 ● | |
| KU-160×150 | | 1,490 | 1,500 | 90 | 115 | 120 | 1,720 | 1,780 | 1,620 | 2,489 | |
| KU-160×160 | | 1,490 | 1,600 | 95 | 120 | 125 | 1,730 | 1,790 | 1,725 | 2,706 ● | |
| KU-160×180 | | 1,470 | 1,800 | 95 | 130 | 135 | 1,730 | 1,790 | 1,935 | 3,069 | |
| KU-160×200 | 1,460 | 2,000 | 95 | 135 | 140 | 1,730 | 1,790 | 2,140 | 3,443 | | |
| KU-170×100 | 1,700 | 1,630 | 1,000 | 85 | 90 | 100 | 1,810 | 1,870 | 1,100 | 1,712 | |
| KU-170×120 | | 1,610 | 1,200 | 85 | 100 | 105 | 1,810 | 1,870 | 1,305 | 1,963 | |
| KU-170×140 | | 1,600 | 1,400 | 90 | 110 | 115 | 1,820 | 1,880 | 1,515 | 2,383 ● | |
| KU-170×150 | | 1,590 | 1,500 | 90 | 115 | 120 | 1,820 | 1,880 | 1,620 | 2,549 | |
| KU-170×160 | | 1,590 | 1,600 | 95 | 120 | 125 | 1,830 | 1,890 | 1,725 | 2,769 ● | |
| KU-170×180 | | 1,570 | 1,800 | 95 | 130 | 135 | 1,830 | 1,890 | 1,935 | 3,137 | |
| KU-170×200 | 1,560 | 2,000 | 95 | 135 | 140 | 1,830 | 1,890 | 2,140 | 3,513 | | |
| KU-180×100 | 1,800 | 1,730 | 1,000 | 85 | 90 | 100 | 1,910 | 1,970 | 1,100 | 1,762 | |
| KU-180×120 | | 1,710 | 1,200 | 85 | 100 | 105 | 1,910 | 1,970 | 1,305 | 2,015 | |
| KU-180×140 | | 1,700 | 1,400 | 90 | 110 | 115 | 1,920 | 1,980 | 1,515 | 2,440 ● | |
| KU-180×150 | | 1,690 | 1,500 | 90 | 115 | 120 | 1,920 | 1,980 | 1,620 | 2,609 | |
| KU-180×160 | | 1,690 | 1,600 | 95 | 120 | 125 | 1,930 | 1,990 | 1,725 | 2,831 ● | |
| KU-180×180 | | 1,670 | 1,800 | 95 | 130 | 135 | 1,930 | 1,990 | 1,935 | 3,204 | |
| KU-180×200 | 1,660 | 2,000 | 95 | 135 | 140 | 1,930 | 1,990 | 2,140 | 3,583 | | |
| KU-190×100 | 1,900 | 1,830 | 1,000 | 85 | 90 | 100 | 2,010 | 2,070 | 1,100 | 1,812 | |
| KU-190×120 | | 1,810 | 1,200 | 85 | 100 | 105 | 2,010 | 2,070 | 1,305 | 2,068 | |
| KU-190×140 | | 1,800 | 1,400 | 90 | 110 | 115 | 2,020 | 2,080 | 1,515 | 2,498 ● | |
| KU-190×150 | | 1,790 | 1,500 | 90 | 115 | 120 | 2,020 | 2,080 | 1,620 | 2,669 | |
| KU-190×160 | | 1,790 | 1,600 | 95 | 120 | 125 | 2,030 | 2,090 | 1,725 | 2,894 ● | |
| KU-190×180 | | 1,770 | 1,800 | 95 | 130 | 135 | 2,030 | 2,090 | 1,935 | 3,272 | |
| KU-190×200 | 1,760 | 2,000 | 95 | 135 | 140 | 2,030 | 2,090 | 2,140 | 3,653 | | |
| KU-200×100 | 2,000 | 1,930 | 1,000 | 85 | 90 | 100 | 2,110 | 2,170 | 1,100 | 1,862 | |
| KU-200×120 | | 1,910 | 1,200 | 85 | 100 | 105 | 2,110 | 2,170 | 1,305 | 2,120 | |
| KU-200×140 | | 1,900 | 1,400 | 90 | 110 | 115 | 2,120 | 2,180 | 1,515 | 2,555 ● | |
| KU-200×150 | | 1,890 | 1,500 | 90 | 115 | 120 | 2,120 | 2,180 | 1,620 | 2,729 | |
| KU-200×160 | | 1,890 | 1,600 | 95 | 120 | 125 | 2,130 | 2,190 | 1,725 | 2,956 ● | |
| KU-200×180 | | 1,870 | 1,800 | 95 | 130 | 135 | 2,130 | 2,190 | 1,935 | 3,339 | |
| KU-200×200 | 1,860 | 2,000 | 95 | 135 | 140 | 2,130 | 2,190 | 2,140 | 3,723 | | |