ANTI F LOOD S.A

DATASHEET

Antiflood Hesco Systems

ISO 9001 ISO 14001 ISO 26000 ISO 37001 ISO 45001

ANTI F LOOD S.A

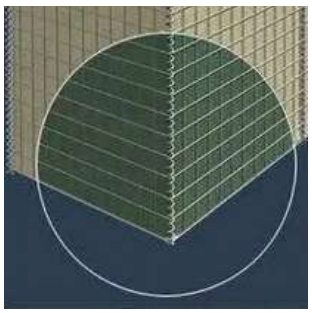
HESCO

Based on our military grade Concertainer™, HESCO flood barriers can be deployed quickly and easily. They enable you to construct flood defenses without the need for specialized tradesmen or equipment. When FLOODLINE units are joined and filled, their cellular structure and mesh framework create walls of exceptional strength and structural integrity, capable of halting fast moving, debris-filled flood waters.
FLOODLINE protects homes from 100-year flood events, hurricanes and seasonal storms. The barriers ensure critical infrastructure remains functioning so emergency service routes can stay open.
FLOODLINE can be planted with suitable grasses and vegetation to form a natural landscape, as well as a protective structure. This makes it ideal for areas at risk of regular flooding, like a river or canal bank.

1. Hesco Material

Hesco system comes as a flat packed unit and can be assembled faster with minimal manpower, handling equipment and fill material. A 10m long wall will take two people and one front-loading machine only 20 minutes to construct. Using sandbags, the same wall will take eight people eight hours to build and needs three time as much fill material. Hesco units unfold and are positioned, pinned together and filled with local materials like sand or earth.
Because the units are pinned together, they can create limitless defensive structures anywhere, anytime.

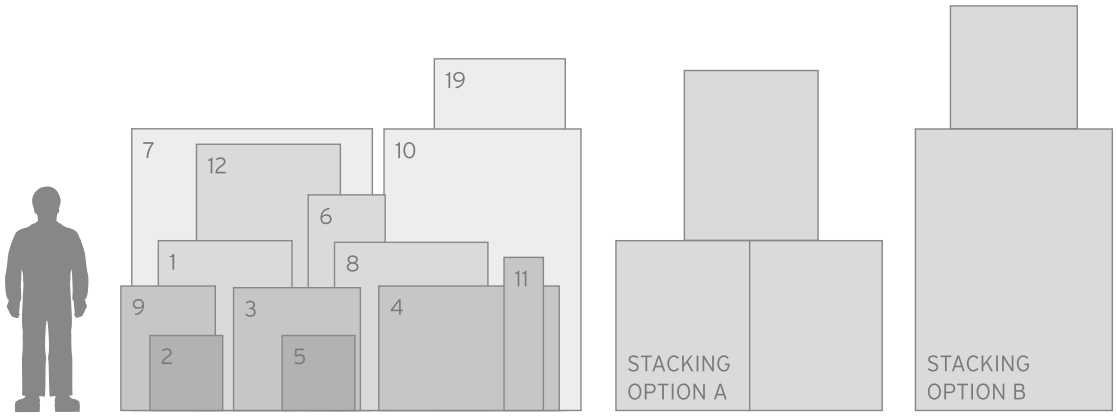
material: made from strengthened zinc-aluminium coated steel



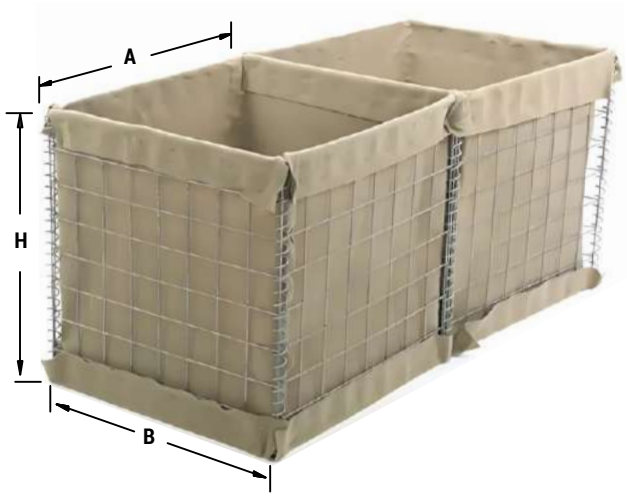
1.1 Hesco Dimensions

The original earth-filled Concertainer™ product, Hesco units, are renowned for protecting troops and infrastructure in conflicts around the world and delivering rapidly deployable border control and perimeter security in hostile territory.

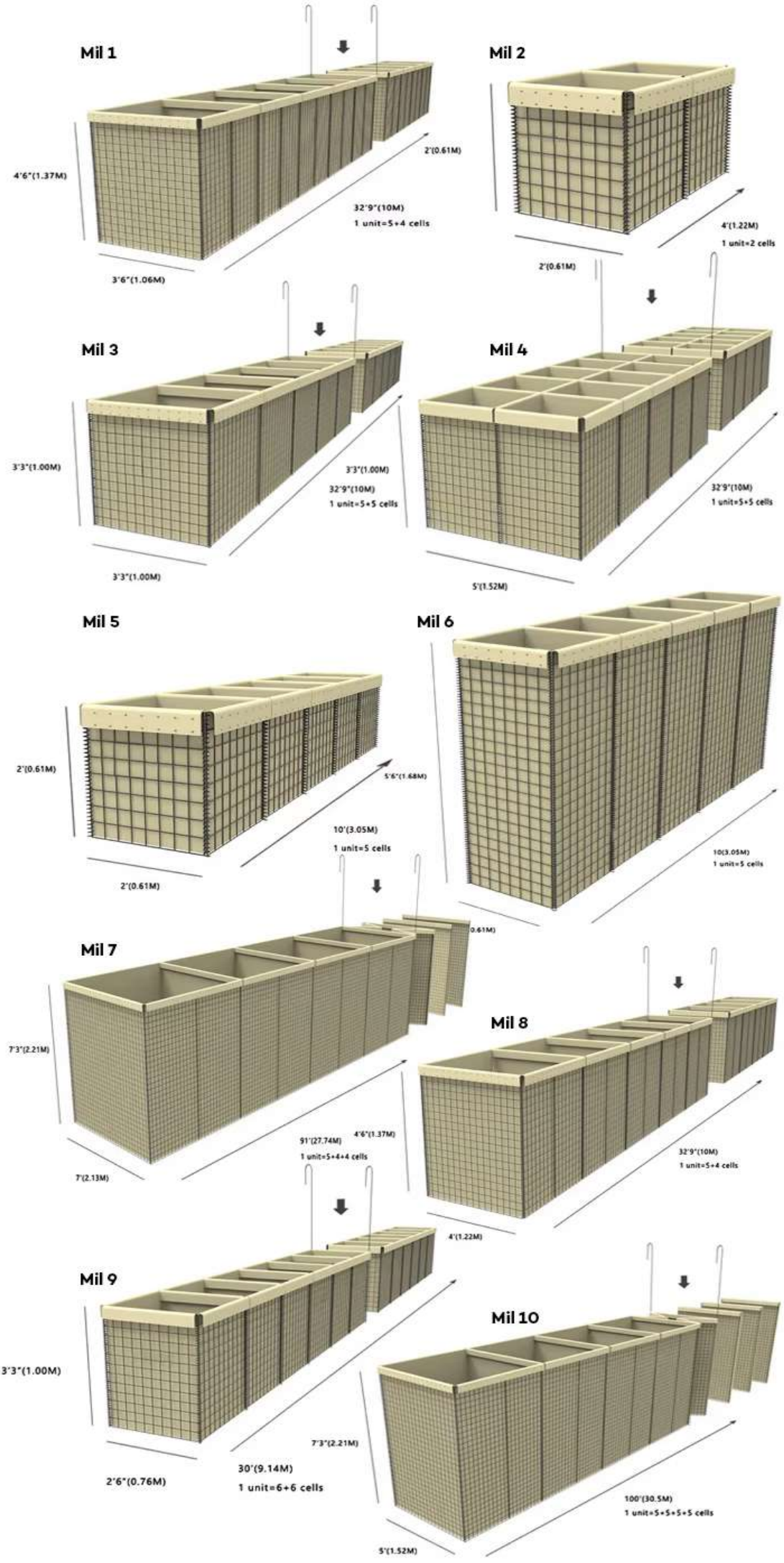
- **non-woven polypropylene geotextile**
- **UV stabilized**
- **zinc-aluminum coated steel**
- **available in different sizes**
- **modular design for variable configuration**
- **delivered flat packed for logistical efficiency**



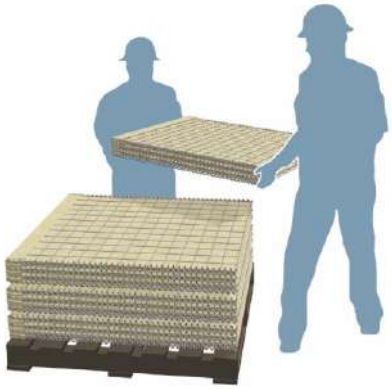
General Dimensions	H	B	A
MIL1	1.37	1.06	10
MIL2	0.61	0.61	1.22
MIL3	1.00	1.00	10
MIL4	1.00	1.52	10
MIL5	0.61	0.61	3.05
MIL6	1.63	0.61	3.05
MIL7	2.21	2.13	27.74
MIL8	1.37	1.22	10
MIL9	1	0.76	9.14
MIL10	2.21	1.52	30.5
MIL11	1.22	0.3	1.22
MIL12	2.13	1.06	33
MIL19	2.74	1.06	3.18



dimensions in m

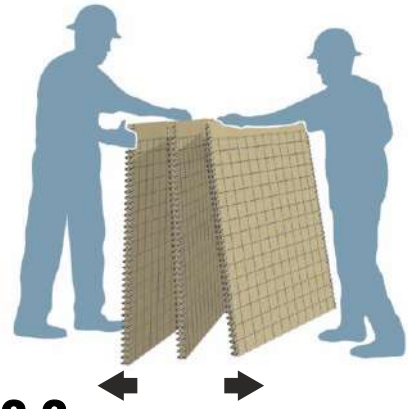

Mil 1
4'6"(1.37M)
2'(0.61M)
32'9"(10M)
1 unit=5+4 cells
3'6"(1.06M)
Mil 2
4'(1.22M)
1 unit=2 cells
2'(0.61M)
Mil 3
3'3"(1.00M)
3'3"(1.00M)
32'9"(10M)
1 unit=5+5 cells
3'3"(1.00M)
Mil 4
32'9"(10M)
1 unit=5+5 cells
5'(1.52M)
Mil 5
2'(0.61M)
5'6"(1.68M)
10'(3.05M)
1 unit=5 cells
2'(0.61M)
Mil 6
10(3.05M)
1 unit=5 cells
0.61M)
Mil 7
7'3"(2.21M)
91'(27.74M)
4'6"(1.37M)
1 unit=5+4+4 cells
7'(2.13M)
Mil 8
32'9"(10M)
1 unit=5+4 cells
4'(1.22M)
Mil 9
3'3"(1.00M)
2'6"(0.76M)
30'(9.14M)
1 unit=6+6 cells
Mil 10
7'3"(2.21M)
100'(30.5M)
1 unit=5+5+5+5 cells
5'(1.52M)

2. Hesco Installation



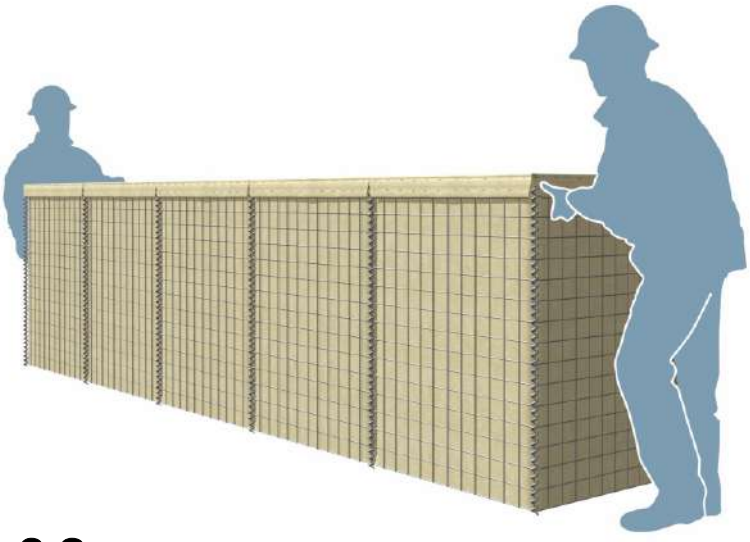
2.1

Two workers place a FLOODLINE unit on the ground horizontally in the location in which the wall is to be erected.



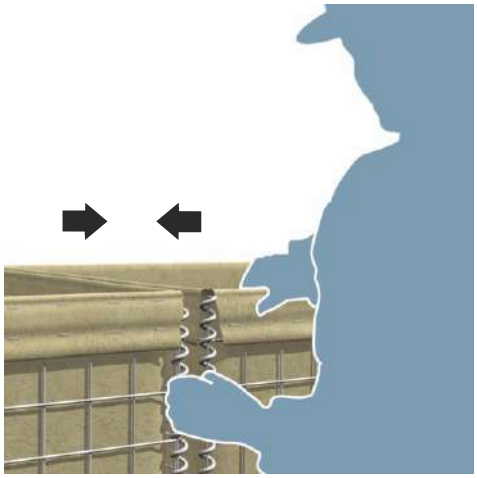
2.2

Stand the unit upright with the stapled row at the top.
Two men each grasp an end panel and together open the unit out in the desired direction.
The unit will unfold and be self-supporting.
Pull the unit out to its full length and ensure it is in the correct position.



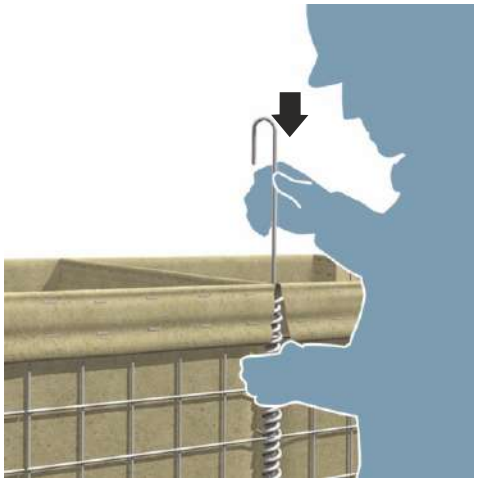
2.3

Adjust the outer walls of the segments so they are parallel or as close as the ground will allow.



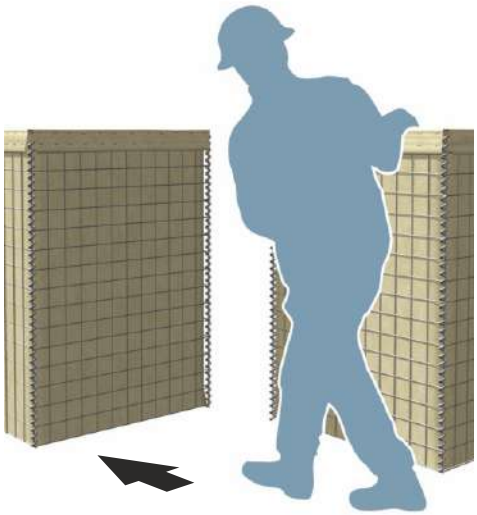
3.1

Butt together the two unfilled units tobe joined. Pull the corner coils of bothunits together until they overlap.



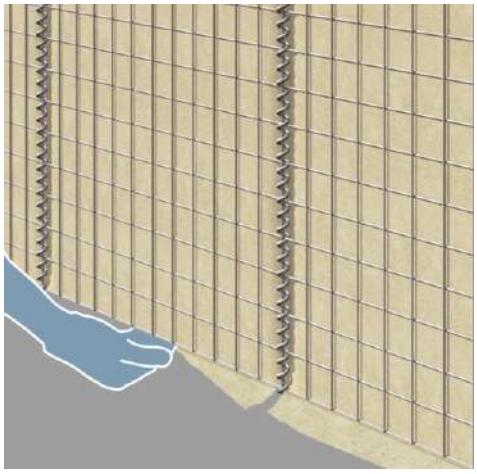
3.2

Insert a joining pin down the center of both the front and back overlapped corner coils, thus joining them together.
Ensure the pin is fully fitted.



3.3

Make any joins, extensions and corners before filling the unit (see 4 Filling).You will not be able to join additional units once the cells are full.

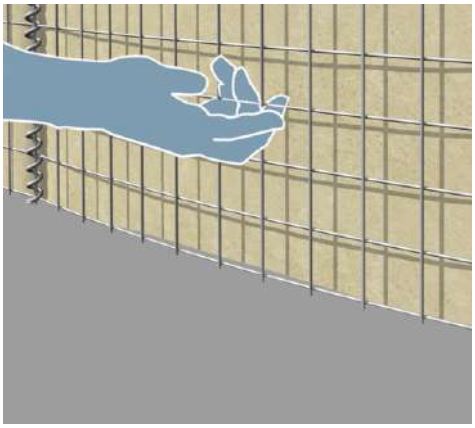


3.4

Tuck the geotextile flaps into the units and make sure they are flat to the ground, before filling.

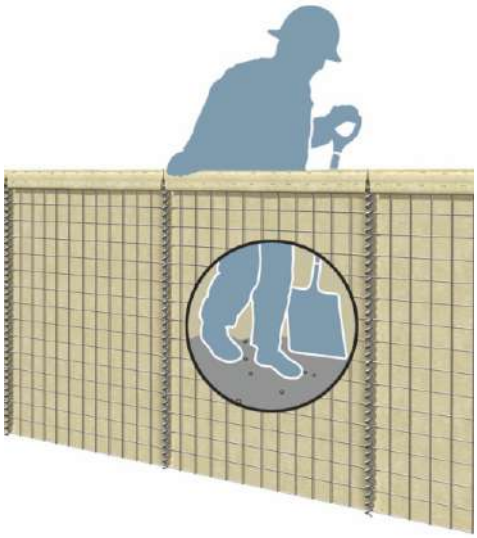
4.1

Place 12" – 18" of fill material in the bottom of the end cells, either manually or using appropriate loading equipment, such as a front loader. This helps to anchor the units.
Ensure fill material is always placed in the center of each cell.



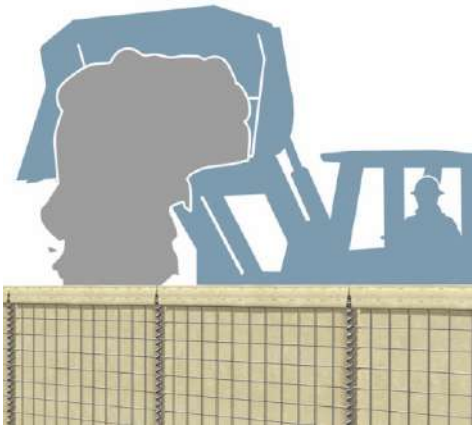
4.2

It is important that the bottom center of each exterior panel is pulled out 3" – 4" after the first 12" – 18" layer of fill material is placed in a cell *(see also 4.6)*.
The side panels of cells are designed to bow as fill is added.



4.3

Each layer of fill should be evenly distributed and then manually or mechanically compacted before continuing the process.
Failure to compact could result in unstable structures.

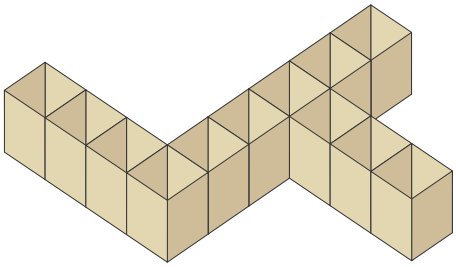


4.3

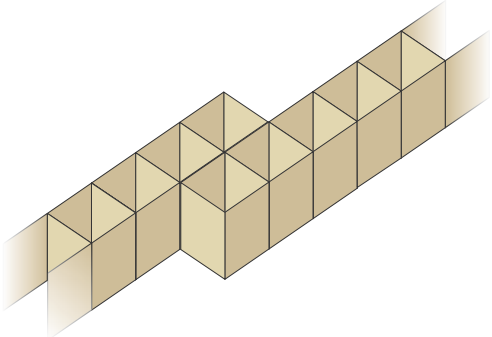
Continue to place 12" – 18" of fill in all other cells, as shown opposite. It is important that cells are filled evenly, as failure to do so bends the diaphragms and reduces the width of the base (no cell should have more than 12" of material than its adjacent).

5. Curves, corners and tie - ins

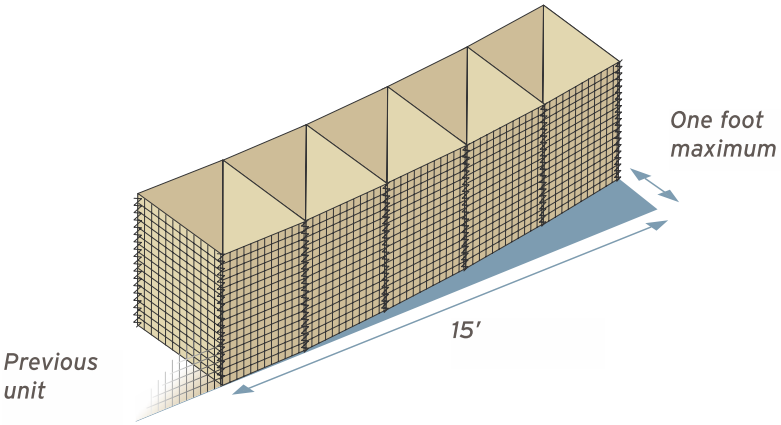
Walls with gradual curves can be created using FLOODLINE units.
The units flexibility allows each cell of the unit to be gradually turned away from the previous unit's tangent, as shown below.
This can be useful when following the line of a road or other geographical feature.



Simple, right-angled joins and junctures as shown.
Where a right angled corner is required, join two units at 90˚ by meshing
the coils of the cells and inserting the joining pins.
Also, the offset join shown can be useful to step a run of units around an obstruction.



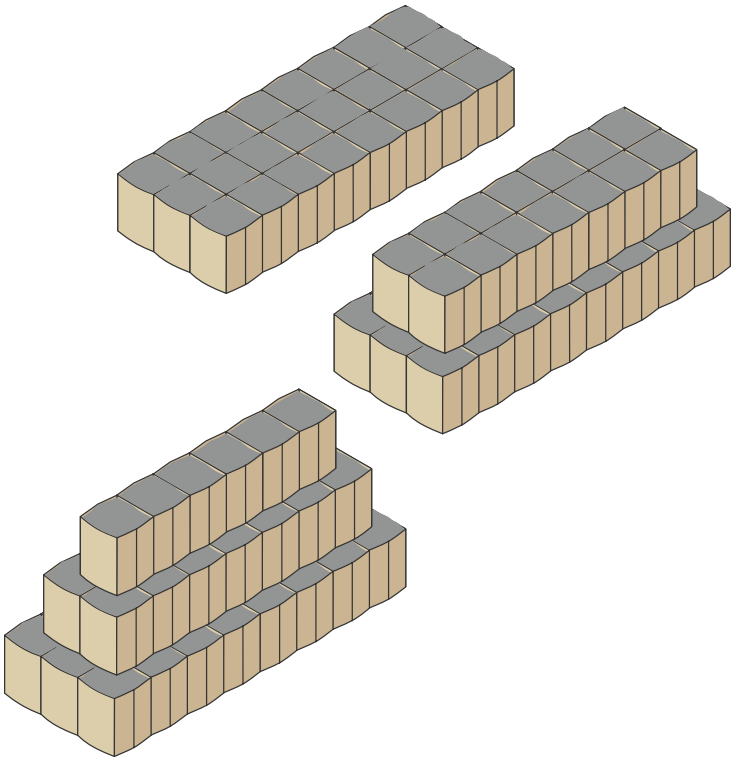
Curving is done during setting up and, as with a linear section, all curved
units must be set out and joined before filling.
It is not recommended to curve each unit more than one foot from the tangent line set by the previous unit, as shown below.



5.1 Pyramid walls

Where there is a requirement for very tall walls it may be necessary to form a pyramid structure.
Make sure the ground is level and firm before proceeding to build a tall wall.

- Deploy lower units and fill completely.
- Do not leave them 4" – 6" from the top.
- Add a 3" cap of fill material to the top of each tier before installing the next tier.
- This will act as a cushion when fill material settles and compacts over time.
- Place and join the units for the second layer and fill them completely.
- Place and join the units for the third layer and fill them completely.



ANTI F LOOD S.A

HESCO