

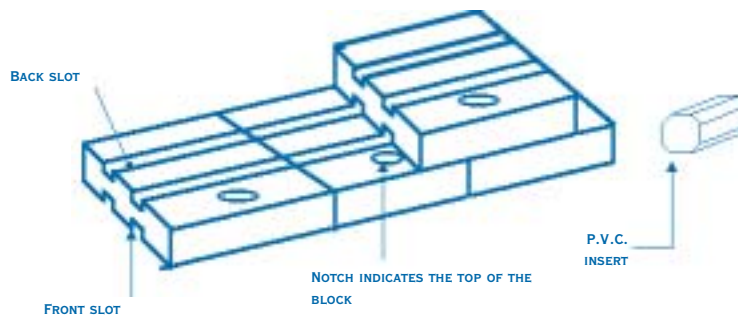
RETAINING WALLS

Type of wall	max height inclined	max height straight	Degree
GARDEN WALLS ECONO & ANTIQUE	75 CM (30'')	—————	10
SLOPE BLOCK	1,5 M (5')	—————	10
SPLIT FACE SLOPE BLOCK	1.5 M (5')	—————	10
MIKRO-BLOK	90 CM (3')	75 CM (30'')	5
MINI-BLOK	1.65 M (5,5')	75 CM (30'')	5
CRETA	1.2 M (4')	75 CM (30'')	4
MINI-CRETA	90 CM (3')	75 CM (30'')	5
QUARRY STONE 100 MM	1.5 M (5')	75 CM (30'')	7
QUARRY STONE 200 MM	90 CM (3')	75 CM (30'')	4
MIX QUARRY			
STONE 100 & 200 MM	90 CM (3')	75 CM (30'')	5

N.B.: THE WALLS MIKRO-BLOK, MINI-CRETA, CRETA AND QUARRY STONE 100 & 200 MM OFFER THE POSSIBILITY OF BUILDING A STRAIGHT OR INCLINED WALL, A STAIRCASE, A PILASTER AND INWARD OR OUTWARD CURVES WITH THE HELP OF THE P.V.C. INSERTS.

IN THE CONSTRUCTION OF A VERTICAL WALL HIGHER THAN 75CM (30''), IT IS RECOMMENDED TO USE A GEOGRID. CONTACT YOUR TECHO-BLOC REPRESENTATIVE FOR MORE INFORMATION AT:

1-800-463--0450



1-TO START OFF, MAKE SURE TO IDENTIFY AND INSTALL ALL THE BLOCKS RIGHT SIDE UP. THIS IS INDICATED BY THE NOTCH ON THE TOP FRONT END OF THE BLOCK.

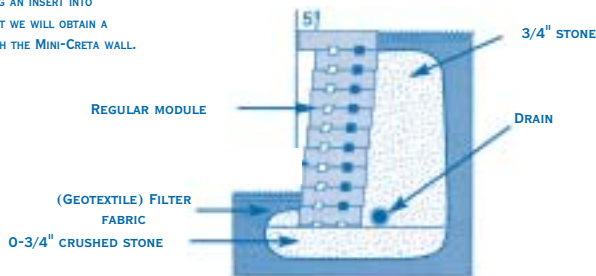
2-AN INSERT IS USED TO MATE THE DIFFERENT COURSES OF BLOCKS (AS SHOWN ABOVE)

3-THERE ARE 2 SLOTS AT THE TOPSIDE AND THE BOTTOM SIDE OF THE BLOCK, WHICH WILL PERMIT YOU TO BUILD A VERTICAL OR INCLINED WALL.

WALL INSTALLATION GUIDE

WALL

SIDE VIEW OF AN INCLINED WALL.
WHEN PLACING AN INSERT INTO
THE BACK SLOT WE WILL OBTAIN A
5° SLOPE WITH THE MINI-CRETA WALL.



SIDE VIEW OF A STRAIGHT WALL.
WHEN PLACING AN INSERT INTO THE FRONT SLOT, A VERTICAL
WALL IS OBTAINED FOR THE MINI-CRETA.



BEFORE COMMENCING EXCAVATION, CONTACT YOUR LOCAL UTILITY COMPANIES TO LOCATE ANY UNDERGROUND WIRES OR PIPES.

- 1- IN THE LOCATION WHERE THE WALL WILL BE BUILT, DIG A TRENCH OF 12" TO 24" WIDE. THEN LEVEL AND COMPACT THE TRENCH.
- 2- PLACE A FILTER FABRIC (GEOTEXTILE) FROM THE BOTTOM OF THE TRENCH UPWARD ONTO THE SIDE OF THE EARTH WALL. THIS PROCEDURE WILL AVOID ANY CONTAMINATION BY EXISTING SOIL. THE GEOTEXTILE MUST OVERLAP THE HEIGHT OF THE WALL BY AT LEAST 12".
- 3- THE FOUNDATION OF THE TRENCH SHOULD BE FILLED WITH 6 INCHES OF 0-3/4" CRUSHED STONE FOLLOWED BY A THOROUGH COMPACTION.
- 4- INSTALL THE FIRST ROW OF BLOCKS. THEY MUST BE LEVELED AND PLACED ONE NEXT TO THE OTHER. KEEP IN MIND THAT 10% OF THE HEIGHT OF THE WALL WILL BE BELOW GROUND LEVEL.
- 5- PLACE A 4" PERFORATED DRAIN ON THE BED OF COMPACTED STONE BEHIND THE BLOCKS AND CONNECT IT TO YOUR EXISTING DRAINAGE SYSTEM. THIS 4" DRAIN WILL ALLOW FOR ACCUMULATED WATER TO FLOW FROM BEHIND THE WALL.
- 6- NOW YOU ARE READY FOR THE SECOND ROW OF BLOCKS. WITH EVERY 2ND ROW OF BLOCKS COMPLETED, FILL BEHIND THE BLOCKS WITH CLEAR 3/4" STONE. AT THE LAST ROW OF BLOCKS, COVER THE STONE WITH THE OVERLAPPING FILTER FABRIC.
- 7- THE FINAL TOUCH IS TO INSTALL THE CAP AND FOR SECURITY MEASURES, GLUE THE TOPS TO THE LAST ROW OF BLOCKS WITH A CEMENT ADHESIVE PRODUCT. COVER THE FILTER FABRIC WITH SOIL AND OR GRASS LEVEL TO TOP OF WALL.

N.B. IT IS POSSIBLE TO BUILD WALLS HIGHER THAN 48", USING GEOGRID. BUT BEFORE DOING SO, CONTACT YOUR TECHO-BLOC REPRESENTATIVE AT 1-800-463-0450.

INSTALLATION OF MINI-BLOK, MIKRO-BLOK, MINI-CRETA, CRETA AND QUARRY STONE.

THESE RETAINING WALL SYSTEMS OFFER THE POSSIBILITY OF BUILDING A VERTICAL OR INCLINED RETAINING WALL WITH THE AID OF AN INSERT.



NOTCH
SHOWS THE TOP
OF THE BLOCK



2 AN INSERT IS USED TO MATE THE DIFFERENT COURSES OF
BLOCKS. (AS SHOWN ABOVE)



BACK SLOT
TOP SLOTS
FRONT SLOT

3 THERE ARE 2 SLOTS AT THE TOP SIDE AND AT THE
BOTTOM SIDE OF THE BLOCK WHICH WILL PERMIT YOU
TO BUILD A VERTICAL OR INCLINED WALL.

N.B. THE INSERTS WILL BE PLACED IN THE FRONT
SLOT FOR A VERTICAL WALL AND IN THE BACK SLOT
FOR AN INCLINED WALL. FOR THE MIKRO-BLOK, MINI-
CRETA WE HAVE A 5 DEGREE SLOPE, THE CRETA 4
DEGREES AND QUARRY STONE AT 4 OR 7 DEGREES.



VERTICAL WALLS MUST NOT SURPASS 30° IN HEIGHT,
UNLESS APPROPRIATE GEO-GRID IS INSTALLED. CALL
YOUR TECHO-BLOC REPRESENTATIVE FOR MORE IN-
FORMATION.

1 TO START OFF, MAKE SURE TO IDENTIFY AND INSTALL
ALL THE BLOCKS RIGHT SIDE UP. THIS IS INDICATED
BY A NOTCH ON THE TOP FRONT END OF THE BLOCK.

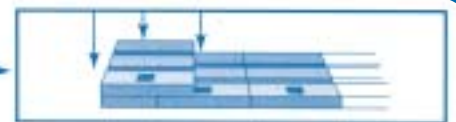
POSITIONING OF THE P.V.C. INSERT.



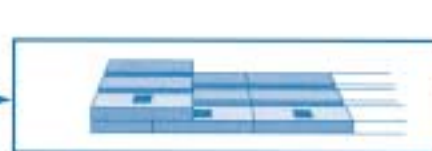
1 LAY DOWN FIRST COURSE OF BLOCKS.



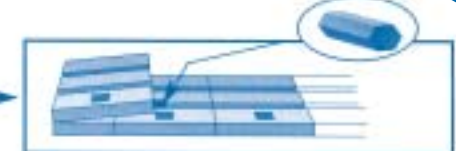
2 THEN SET DOWN THE FIRST BLOCK OF THE SECOND COURSE.



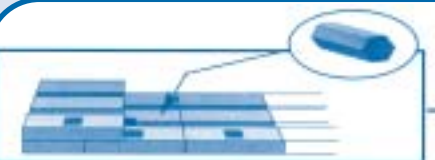
3 LIFT THE END OF THE BLOCK AT THE EDGE OF THE WALL AND PLACE AN INSERT
IN THE PREDETERMINED SLOT.



4 NOW BRING DOWN THE BLOCK LOCKING IT INTO POSITION.



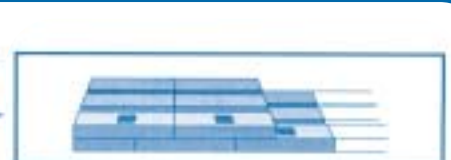
5 THEN LIFT THE OPPOSITE END AND PLACE ANOTHER INSERT IN THE SAME SLOT
AND SET THE BLOCK DOWN DIRECTLY ON THE INSERT.



6 MAKE SURE THAT THE SECOND INSERT IS PARTIALLY VISIBLE SO THAT IT MAY
BE USED TO MATE THE NEXT BLOCK.



7 WHEN MATING THE BLOCKS WITH A PARTIALLY VISIBLE INSERT, MAKE SURE
THAT THE BLOCK IS PLACED DIRECTLY OVER THE INSERT AND BROUGHT STRAIGHT
DOWN.
(THIS IS TO ENSURE THAT THE INSERT IS NOT PUSHED UNDER THE PREVIOUS
BLOCK).



NB: NOTICE THAT THE MINI-BLOK IS REVERSED IN ITS INSTALLATION FROM THE
OTHER BLOCKS. IT WILL STAND VERTICALLY IF THE INSERT IS PLACED IN THE BACK
SLOT AND INCLINED IF THE INSERT IS PLACED IN THE FRONT SLOT.

INSTALLATION GUIDE

FOUNDATION

IN THE CONSTRUCTION OF A RETAINING WALL THE FOUNDATION WILL NEED TO HAVE THE CAPACITY OF HOLDING THE WEIGHT OF THE WALL. THE FOUNDATION SHOULD BE WELL COMPACTED AT 95% OF THE PROCTOR.

ALL WALLS MANUFACTURED BY TECO-BLOC WILL BE LAID ON A WELL COMPACTED BASE OF 0-3/4" CRUSHED STONE .TO OBTAIN A FINAL GRADE WELL LEVELED WE COULD USE SOME STONE DUST OR SAND FOR A MAXIMUM OF 1/2" THICK.

A POURED CONCRETE BASE IS NOT RECOMMENDED UNLESS IT IS BELOW THE FROST LINE. A COMPAC-TED BASE IS RECOMMENDED DUE TO THE FREEZE THAW CYCLE WHICH WILL GIVE FLEXIBILITY TO THE STRUCTURE OF THE WALL.

BASE

AS A RULE OF THUMB 10% OF ALL WALLS SHOULD BE BURIED BELOW GROUND LEVEL.

EX: A WALL OF 3 METERS (10') HIGH SHOULD HAVE 30CM (12") BURIED BELOW GROUND LEVEL .WHICH IN FACT WILL BE A WALL OF 3.3METER (11") HIGH.

NATURE OF THE SOILS AND THEIR COMPACTION.

IN THE CONSTRUCTION OF A RETAINING WALL THE NATURE OF THE SOIL MUST BE NOTED. DIFFERENT MEASURES WILL NEED TO BE TAKEN TO ELIMINATE THE CONTAMINATION OF THE SOIL. THE BACKFILL OF A RETAINING WALL WHICH IS BUILT ON A POOR SOIL SUCH AS CLAY WILL NEED TO BE SEPARATED BY A GEO MEMBRANE FROM THE 3/4" NET STONE AND THE NATIVE SOIL.

IN THE CONSTRUCTION OF A RETAINING WALL NEEDING A GEOGRID THE BACK FILL COULD BE DONE WITH SOME CLASS "A" SAND GRADE OR WITH 3/4" NET STONE AND AGAIN WITH THE USE OF A GEO MEMBRANE.

INSTALLATION GUIDE

WALL

DRAINAGE

ALL WALLS MANUFACTURED BY TECHO-BLOC WERE DESIGNED TO ACCEPT THE HYDROSTATIC PRESSURE. THE AGGREGATES USED BEHIND THE WALLS WILL ACT AS A DRAINAGE SYSTEM. RECOMMENDS THE INSTALLATION OF A PERFORATED DRAIN INSTALLED BEHIND THE FIRST ROW OF BLOCK WHICH WILL HAVE AN EXIT AT THE LOWEST POINT OF THE WALL AND WILL BE CONNECTED TO AN EXISTING DRAINAGE SYSTEM.

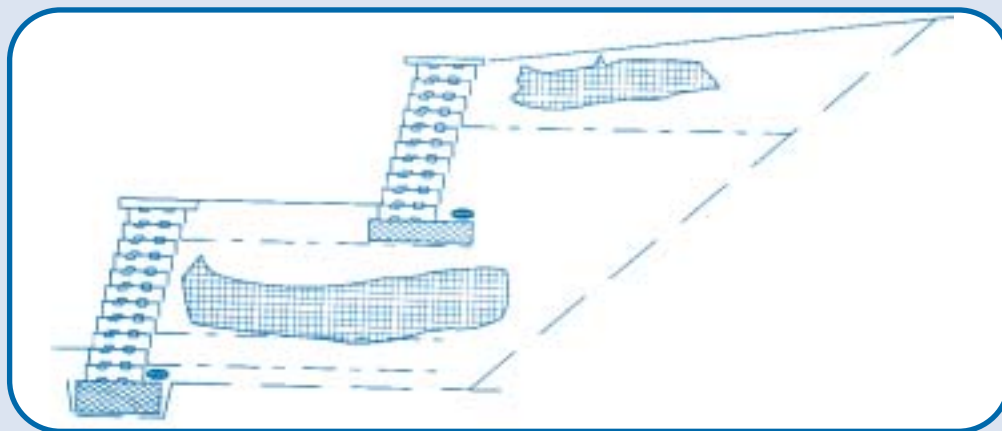
SURFACE DRAINAGE

ALL CONSTRUCTION SITES MUST HAVE A SLOPE TO DRAIN ALL SURFACE WATER. ALWAYS PAY SPECIAL ATTENTION TO THE WATER RUNNING FROM A ROOF, GUTTER AND PAVED SURFACE AND THE TOPOGRAPHY OF THE NATURAL LANDSCAPE.

MULTI LEVEL WALLS

IN THE CONSTRUCTION OF MULTI LEVEL WALLS, IT IS RECOMMENDED TO HAVE AN EQUIVALENT DISTANCE OF TWICE THE HEIGHT OF THE BOTTOM WALL BEFORE BUILDING THE SECOND LEVEL WALL AND ALWAYS TAKE IN CONSIDERATION THAT 10% OF THE TOTAL VALUE OF THE WALL SHALL BE BURIED BELOW GROUND LEVEL.

EX: A WALL OF 5 FEET SHOULD HAVE THE NEXT WALL BUILT AT 10 FEET FROM THE FIRST ONE.



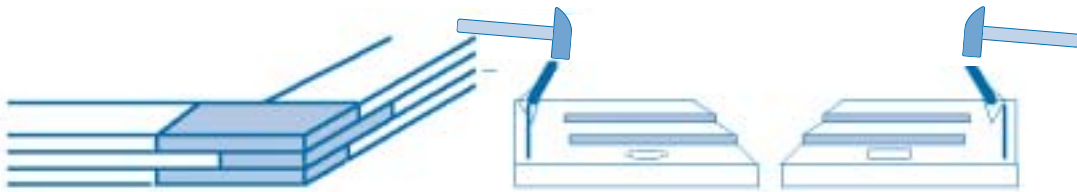
INSTALLATION GUIDE

TECHO-BLOC'S RETAINING WALL SYSTEM IS THE MOST VERSATILE.

- 1- WE CAN MAKE A MINIMAL RADIUS OF 1.5 METER (5 FOOT) WITH THE USE OF REGULAR MODULES.
- 2- WE CAN CREATE A 90-DEGREE CORNER WITH THE USE OF THE CORNER PIECES FOUND IN EVERY PALLET THAT CREATES A RIGHT AND LEFT CORNER.
- 3- WITH ALL UNITS BEING ANGULAR WE CAN CREATE INWARD OR OUTWARD CURVES.
- 4- THE MAXIMUM HEIGHT OF A STRAIGHT WALL IS 750MM (30") AND FOR ANY WALL WITH A BATTER. WE WILL OBTAIN A BATTER OF 4 TO 7 DEGREES.
- 5- STAIR RAISER CAN ALSO BE BUILT.
- 6- WITH THE P.V.C. INSERT UNIQUE TO TECHO-BLOC, YOU CAN ALSO BUILD YOUR WALL STRAIGHT OR INCLINED.

THE 90-DEGREE CORNER

WITH A SLEDGE HAMMER AND A 4" CHISEL CUT THE UNITS AS SHOWN BELOW AND YOU WILL OBTAIN A LEFT AND A RIGHT CORNER.



N.B. TO OBTAIN A CLEAN BREAKAGE PLACE YOUR CHISEL AT A 45-DEGREE ANGLE TO CUT IN THE GROOVE.

FINALLY YOU CAN ENHANCE THE APPEARANCE OF THE WALL BY INTEGRATING A COLUMN AS SHOWN BELOW.

THE COLUMN IS TO BE BUILT WITH THE CORNER UNITS ONLY.

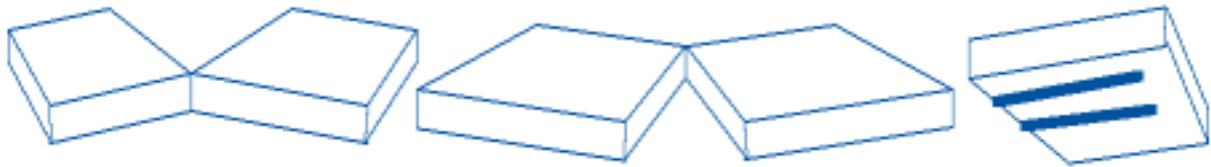
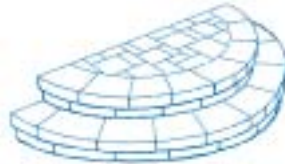
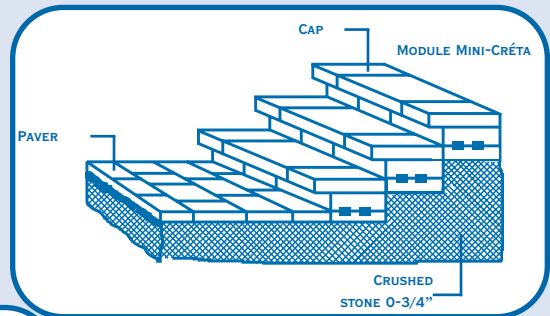


THE FINAL TOUCH...

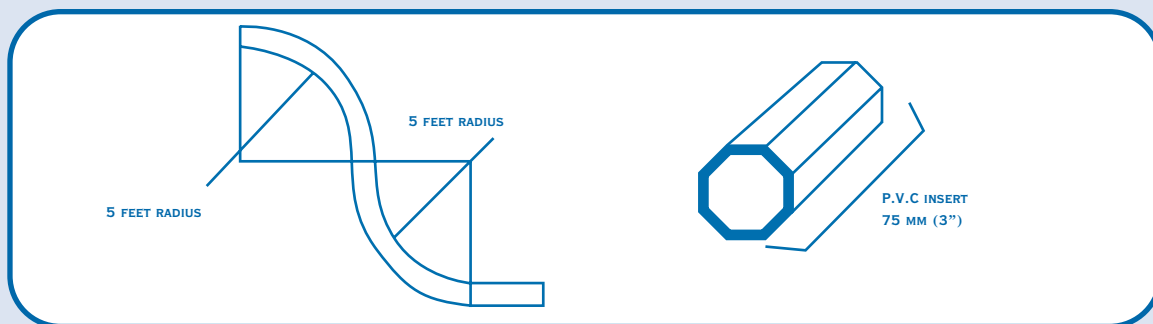
THE CONSTRUCTION OF STEPS.

AS SHOWN BELOW THE STEPS ARE OBTAINED BY USING TWO PIECES OF THE MODULAR BLOCK AND THE CAP. FOR THE BASE WE USE THE MODULAR BLOCK AND THEN THE STEP IS DONE BY USING THE CAP PIECE OF 300MM (12") OR WE CAN USE FOR NON CURVED STEP THE MODULE OF 350MM (13 3/4") FROM THE MINI-BLOK GRANITEX. THE FOUNDATION SHOULD ALWAYS BE BUILT WITH 0- 3/4" CRUSHED STONE AND AT LEAST 6" THICK AND WELL COMPACTED.

WALL

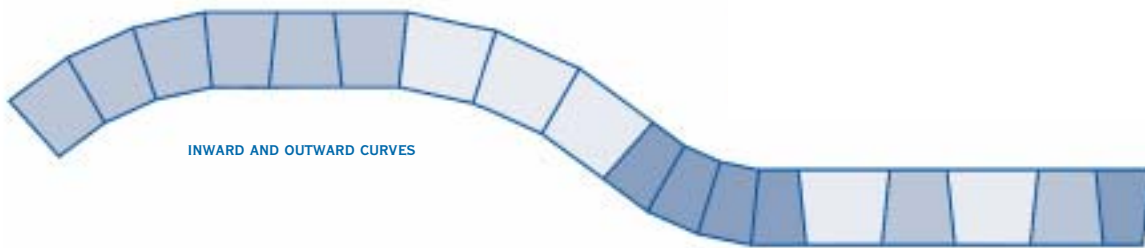
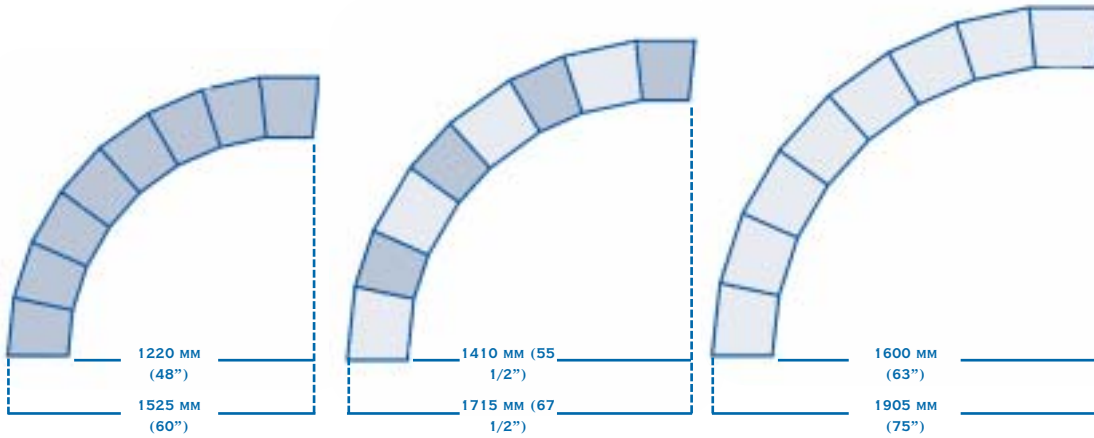
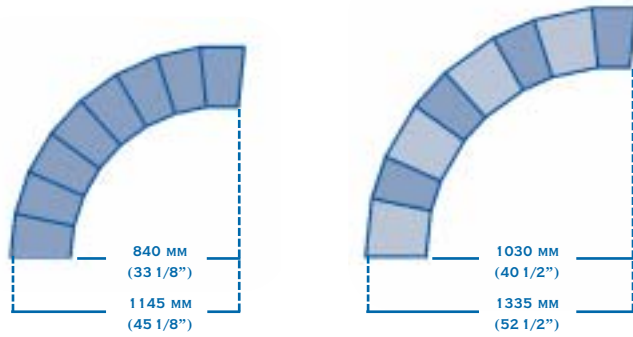


IT IS POSSIBLE TO BUILD SOME STRAIGHT OR OUTWARD AND INWARD CURVES WITH A RADIUS OF 5 FEET.



THE FACT THAT ALL CAPS ARE MADE WITH AN ANGLE AND ARE REVERSIBLE, SINCE THEY ARE SPLIT ON BOTH SIDES, GIVES YOU THE OPPORTUNITY TO HAVE STRAIGHT OR CURVED COPING FOR YOUR WALLS

TECHO-BLOC'S RETAINING WALLS... STRUCTURAL WALLS



STRAIGHT LINE

TECHO-BLOC'S RETAINING WALLS... STRUCTURAL WALLS

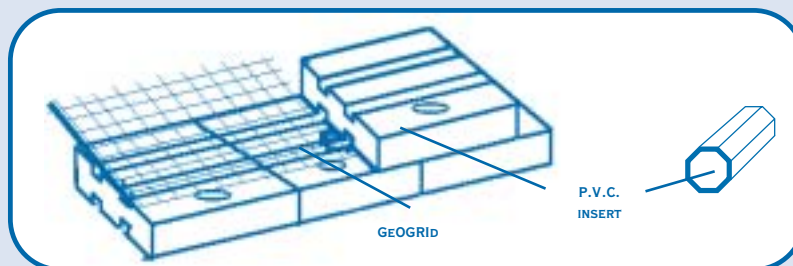


WALL

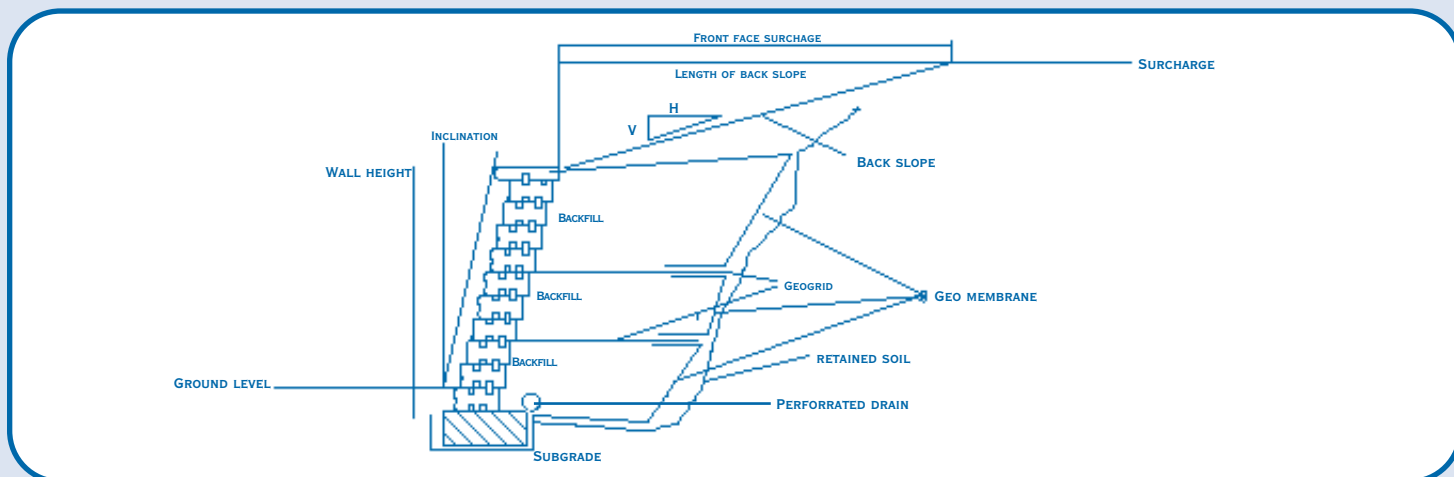


MOST TECHO-BLOC WALLS ARE MADE WITH TWO SLOTS WHICH CAN RECEIVE A P.V.C. INSERT. PLACE AN INSERT IN THE FRONT SLOT TO OBTAIN A STRAIGHT WALL AND THE BACK SLOT TO SET BACK. MAKE SURE TO IDENTIFY AND INSTALL ALL BLOCKS RIGHT SIDE UP. THE BLOCKS INDICATED BY A NOTCH ON THE TOP FRONT END OF THE BLOCK AS SHOWN BELOW THE NOTCH IS FOUND ON THE TOP AND NOT AT THE BOTTOM.

ALL THIS DUE TO THE TECHO-BLOC'S ANCHORING SYSTEM.



WHAT ARE GEOGRID AND GEO MEMBRANE/GEOTEXTILE?



AS SHOWN ABOVE YOU WILL SEE THE GEOGRID THAT RUNS FROM THE WALL TO THE BACK. ITS PURPOSE IS TO TIE THE WALL TO THE NATIVE SOIL, WHICH WILL REINFORCE THE WALL AND THE GROUND FOR BETTER STABILITY. THE GEOTEXTILE (GEO MEMBRANE) WILL ELIMINATE THE CONTAMINATION OF BOTH SOILS (THE 3/4" NET STONE AND THE NATIVE SOIL).

SIDE VIEW OF CRETA WALL

Visible height 1,175 mm (46")
When bearing slope

