

JPCONCRETE

Modular Precast Retaining Walls



MODULAR PRECAST RETAINING WALLS

PRODUCT OVERVIEW

- Huge Cost Savings on Installation – install up to 100 linear metres per day and no requirement for fixing down
- Units up to 6000mm in length and up to 6000mm in height
- Designed to NBN EN206-1:2000 and NEN EN 206-1 : 2001 – self-compacting

The Modular Precast Retaining Wall System is available in three different profiles: L, T and U, and offers you a wide range of retaining options, combined with unequalled speed of installation.

These units can be manufactured up to 6000mm high and 6000mm long. The large sections can be installed using our specialist team who can achieve incredible results, placing up to 100m of walling in just one day.

Unlike our other precast retaining wall solutions the modular units do not require fixing once in position. Once the base has been prepared, the units are simply positioned in place using our lorry mounted grab and a simple jointing system means watertight seal is achieved quickly and efficiently.

TECHNICAL DATA

The precast concrete retaining wall units are designed to NBN EN206-1:2000 and and - NEN EN 206-1 : 2001 – self-compacting, with a concrete strength of C60/ C75. Standard cover to reinforcement is 30mm, suitable for 'very severe' exposure.

The units are designed to retain adequately drained material with a density of up to 18Kn/m³ on one or both sides, and an additional surcharge of up to 10Kn/m² can be applied; please get in touch with the team for more details.

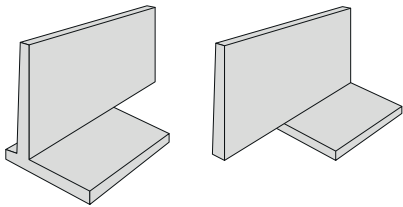
PRODUCT APPLICATIONS

As with all our precast retaining wall systems, these units are suitable for using in a wide variety of projects including:

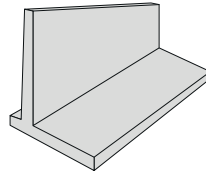
- Silage Clamps / Anaerobic Digestion Plants
- Salt Barns
- Waste & Recycling
- Storage Bays
- Flood Defence
- Bund Walling
- Earth Retention
- Landscaping
- Bulk Material Storage
- Aggregate Bays

L, T & U-TYPE PRECAST WALLS

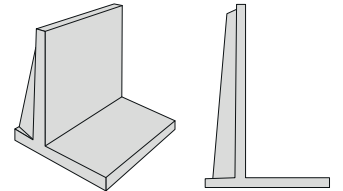
L-TYPE



corner elements

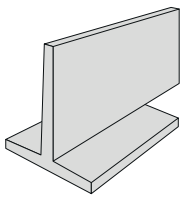


with sloping edge

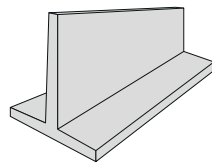


with buttresses

T-TYPE



corner element

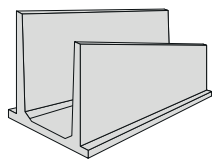


with sloping edge

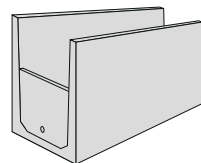
L & T-TYPE MODIFIED ELEMENTS POSSIBLE

- length can be varied to suit
- with a sloping edge
- for angle formation

U-TYPE



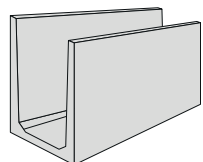
with sloping edge



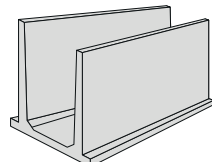
head/end wall

U-TYPE MODIFIED ELEMENTS POSSIBLE

- length can be varied to suit
- with a sloping edge
- one side closed as a head wall or end wall
- with precast stairs to create walkway



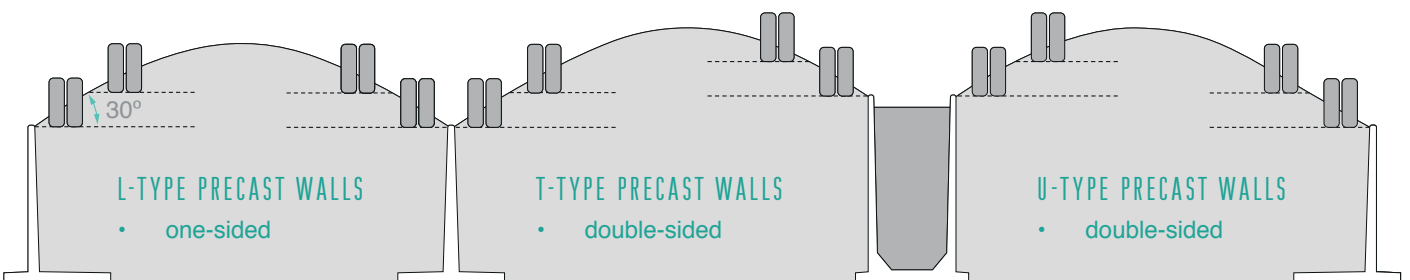
without heel



with heel



- Up to 15 tonnes axle load
- Angle repose up to 30°
- Equivalent weight up to 1,000 kg/m³



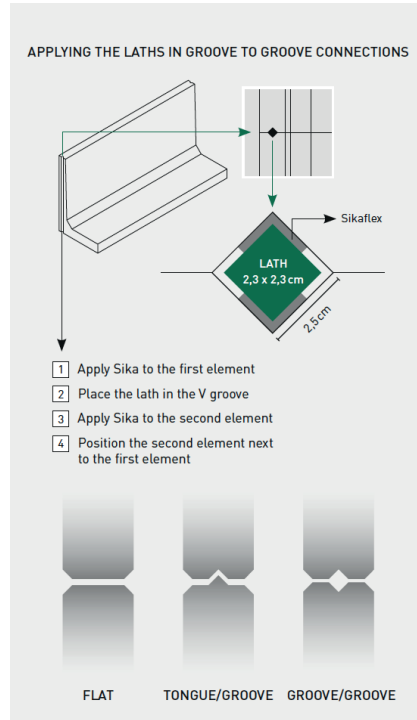
- Self-compacting concrete (very low water absorption)
- Acid resistant concrete (prolongs its lifespan)
- All walls are reinforced
- Laboratory with daily quality control checks
- Certification as a guarantee for high-quality products
- CE marking

DELIVERY AND INSTALLATION OPTIONS



- Products can be offloaded and installed using a vehicle mounted crane (up to 100 linear meters per day)
- Alternatively products can be delivered on flat beds and unloaded by the customer

TYPES OF WALL CONNECTIONS



- Flat
- Tongue/groove
- Groove/groove

TYPES OF LIFTING HOOKS



- Lifting anchors (1) and lifting bars (2) for installation
- Ring transportation anchors

TECHNICAL PROPERTIES

- Concrete composition in accordance with -
 - NBN EN 206-1: 2000 and
 - NEN EN 206-1: 2001 — self-compacting
- Strength category: C60/75
- Products CE marked
- Maximum water-cement factor: 0.45
- Minimum cement content: 380 kg
- Granular materials in accordance with EN 12620 with adequate freeze/thaw resistance

- Concrete: sulphate resistant blast furnace
- Concrete coverage: maximum 30 mm
- Steel quality: FEB 500
- Fire resistance: 60 minutes
- BA reinforced concrete

All walls are subject to a dimensional tolerance of +/- 5 mm in length, width and height.

INSTRUCTIONS FOR USE

Respecting the instructions for use will prolong the lifespan of our products and provide optimal functionality.

The elements must always be placed on a surface that offers adequate support and an equal consolidation ratio for the entire area. The user is fully responsible for assessing and carrying out any improvements to the stability of the substrate.

A foundation of stabilised sand is applied to the substrate. The thickness of this layer depends on the substrate. The stabilised sand is applied at least seven days before the elements are installed. This foundation is applied with an excess width of at least 10 cm with respect to the base of the elements and ensures equal support for the elements. During installation, a filler layer of sand or not yet hardened stabilised sand is used to correct any possible differences in elevation of the foundations or the elements. For elements measuring 3m or higher we advise that a foundation of stone rubble is placed under the sand cement bed.

A calculation note is available for each standard element. This can be requested free of charge. For each retaining wall the soil used to fill the side of the base must always be taken into account and have an equivalent mass of 1800 kg/m³, in combination with a load of 1000 kg/m² or extra stacking soil with an equal mass of 1800 kg/m³ under a maximum talus of 30%. A calculation note can always be produced for heavier loads.

For the walls the material used to fill the side of the base must always be taken into account and have an equivalent maximum weight of 1,000 kg/m³. The maximum angle of repose is 30°.

The maximum axle load above the repose angle is 15 tonnes for a vehicle with a wheel width of 1 metre, taking our instructions into account. When storing maize our walls are calculated for maize that is chopped to 6-8 mm with a dry matter content of at Least 33%. The calculation notes are compiled according to NEN 6702 and NEN 6720. The buyer declares to have been adequately informed about the properties of and possible applications for the goods sold. The buyer agrees to only use the goods for their intended purpose. He/she bears full responsibility for exceeding the recommended stacking heights and the recommended loads.

The U-type walls must always be filled with soil before driving towards the adjacent silo.

Our concrete complies with the strictest norms for European concrete standards NBN EN 206-1:2001 related to resistance against aggressive chemical attack. In certain environments an attack on the concrete elements cannot be ruled out entirely. To optimise the concrete's sustainability and to reduce the risk of attack to an absolute minimum it is strictly recommended that our concrete elements are combined with silo varnish, coatings, epoxy or a silo lining. This preventive measure particularly applies to biogas installations.

JP Concrete can never be held liable for damages resulting from the failure to respect the instructions for use. Any applicable warranties are also excluded if these instructions are not fully complied with.