



General Description / Installation Instructions



General Description

Climbing wall and supporting structure

ROX are an artificial climbing rock. They consist of a reinforced concrete wall covered in a coloured and modelled jetcrete layer of 50mm to 150mm thickness. The climbing wall or element is stabilized by a formed foundation base making each element self-supporting. Each element is individually carved by artists making each element unique. The coloured jetcrete can be chosen from 3 different colours (yellow/red-brown/anthracite) to suit each individual location and additionally climbing grips can be attached to the surface to enhance the climbing experience.



Arrangement / Element combinations

The elements can be combined in various different ways:

- 1: Individually as a stand alone element.
- 2: In combinations:
 - a. Arranged directly next to each other creating a continuous wall.
 - b. Arranged with a gap between each element of approximately 400mm – 500mm.
 - c. Arranged in combination with ropes, nets, steel parts, play structures...

Intended age group

$h \leq 2.00\text{m}$:	age ≥ 3 years
$1.50\text{ m} \leq h \leq 3.00\text{m}$:	age ≥ 6 years

General Information

Sub-structure / preparatory works

Preparing the ground for installation elements is a relatively simple process described in detail in the installation instructions there is a choice of sub-foundation for the elements:

Option 1: 200mm of compacted stone laid in 100mm layers.

Option 2: 150-200mm of standard concrete to provide a stable, level and hard base (The grade of concrete to be used is not significant as the foundation is not intended to be loadbearing).

Option 1 will give a substantial enough base for the elements, but when placing two elements directly together option 2 is the recommended base as it will enable the elements to be moved into their final position with the use of steel bars.

Minimum use zone

With max. 3.0m high elements a minimum use zone of at least 2.5m must be around the elements as per EN 1177.

Surfacing Options

For max. 3.0m high elements we recommend the following specifications of surfacing to comply to EN 1177:

- Rubber crumb EPDM wetpour or similar product with 3.0m critical fall height
- Washed and tumbled pea gravel with a particle size of 6mm recommended minimum depth 400mm
- Playgrade sand with a 3.0m critical fall height, recommended minimum depth 400mm
- Playgrade bark with a 3.0m critical fall height, recommended minimum depth 400mm
- Other surfacing options may be available to comply to EN 1177

Care should be taken when installing the elements to ensure the top of the stone is no more than 3.0m above the proposed finished surface level.

These are to be used as guidelines only.

Climbing grips

Climbing grips are installed by the manufacturer. The attachment of further climbing grips is only possible after consultation with the manufacturer. We do not assume any liability for additionally attached grips.

Safety instructions

EN

ROX as a boulder wall complies with EN 1176-1:2008 for playground equipment.

Information board

An information board is to be attached to the entrance of the climbing and/or play facility.

The following issues should be noted down at least:

- Only use the climbing wall when you wear appropriate clothing
- Climbing is prohibited in the case of rain, snow, ice and in darkness
- Do not climb one above the other

Maintenance and Inspection instructions

General Information

The climbing elements are basically maintenance-free. The items stated below should be checked in the context of the required routine inspections. The required inspections should depend on the attendance of the climbing facility, however it is recommended that each installation is checked at least once a month. A main inspection should be carried out once a year by a qualified employee (safety representative / TÜV).

Climbing wall

Colour differences are intended, minor cracks and salt efflorescence appear due to technological reasons and do not represent a safety risk.

Surfacing

Surfacing should comply to EN 1177 standards. Suggested surfacing options and specifications are located in the section General Information>Surfacing Options.

Climbing grips

Climbing grips are to be checked for stability (check bolted connection).

Suggested inspection sheet layout

Intervals are recommended maximum length between inspections (intervals will vary depending on usage).

	Inspection sheet	Yes	No	Interval:	Measures
1.	Check stability of the grips			Monthly	
2.	Surfacing compliance to EN 1177			Monthly	
3.	Surface damage (e.g. sharp edges)			Monthly	
4.					
5.					

Inspector's name/signature:

Date:

INSTALLATION INSTRUCTIONS

ACCESS

First of all the right size of the placing point and the access have to be checked. Please make sure that a 45 ton lorry with a 13,60m long trailer will come in! MIN 3.5M WIDE



Also a mobile crane with 6 tons pressure each wheel has to be able to stand very close to FINAL POSITION OF each element. The pillars of the crane need an area of 8m x 8m to shore up. A 60 ton crane reaches to 15m.



CREATE SUB FOUNDATION

Excavate pit to specified dimensions and create sub base to one of the following specifications (drawings should be provided with order detailing information for size and position of excavations).

Option 1: 200mm of compacted stone laid in 100mm layers.

Option 2: 150-200mm of standard concrete to provide a stable, level and hard base (The grade of concrete to be used is not significant as the foundation is not intended to be loadbearing).



Option 1 will give a substantial enough base for the elements, but when placing two elements directly together option 2 is the recommended base as it will enable the elements to be moved into their final position with the use of steel bars.

Use some of the spoil excavated to create a slope on one side of the pit this will assist when moving the element into an upright position (see following steps for details).

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Fix the crane chains on the 4 lifting anchors of the wall. Lift the wall of the trailer.



Lay the element down carefully with the base next to the slope created during excavation.



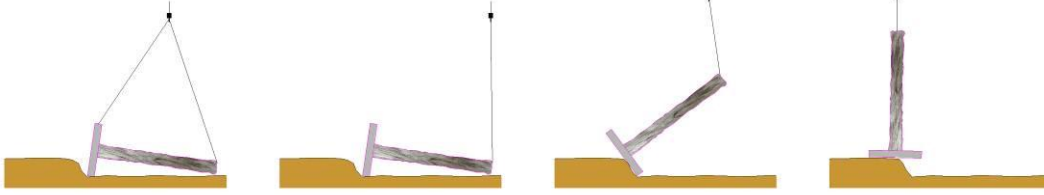
Remove the two chains from the foundation base leaving the two on the top.



Pull slowly towards the slope created during excavation until element is in an upright position



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Lift the element up again



Move the element to the correct position on the sub foundation and set down. If any adjustment in positioning of element is required, lift the element slightly off the ground and lever into position using a crowbar or similar.



Once positioned remove the lifting chains and unscrew the lifting loops from the element (both at the top and in the base).



Elements positioned directly next to each other:

Repeat the above process for the second stone using a crow bar or similar to move the stone as close to the first stone as possible.



Lifting loop preparation

Wet the hole from lifting loop using a paint brush and water. Where the lifting loops have been removed the threaded holes need to be packed with a removable material (eg tissue, paper etc.)



Finishing the elements

Mix the colored mortar to the consistency of a thick paste.

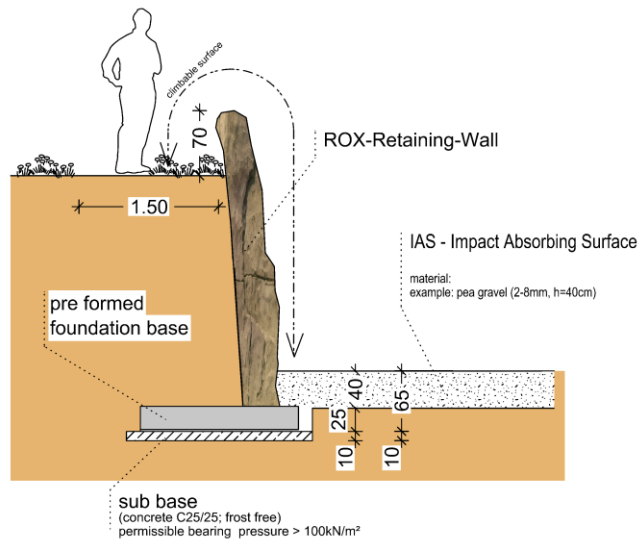
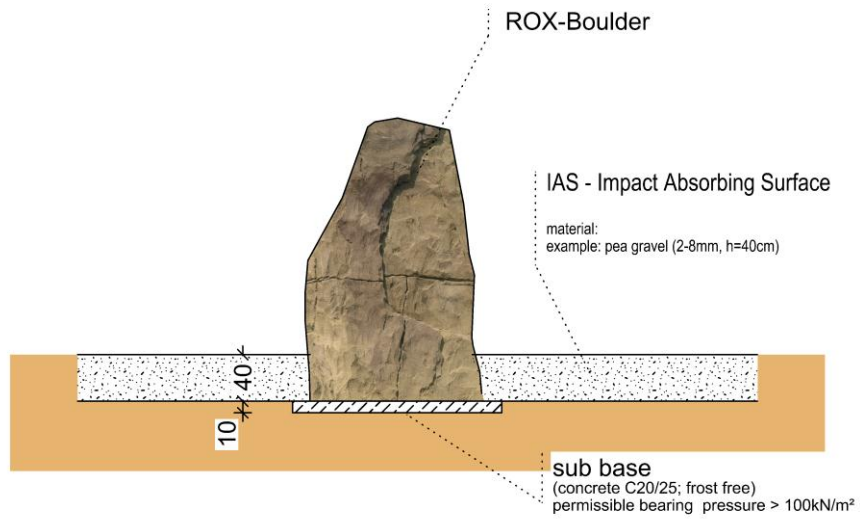
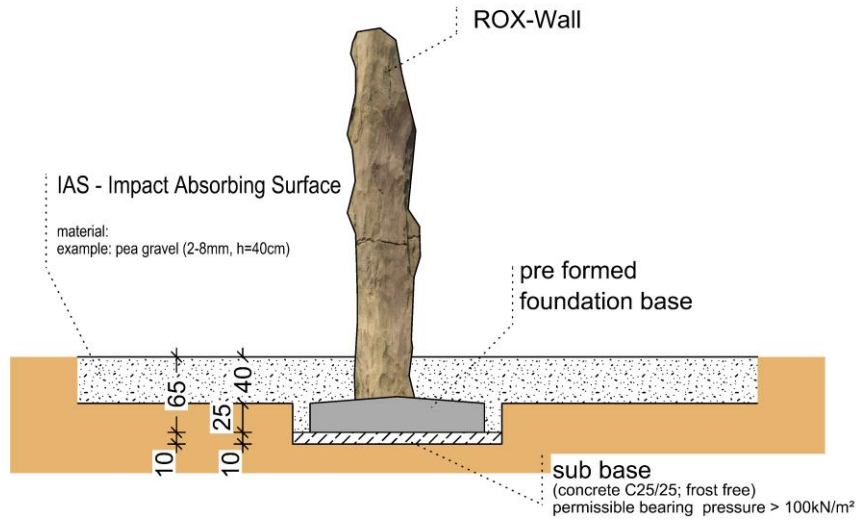


Close lifting eyes

The hole is then to be filled with the mortar and finished by roughly brushing over the mortar leaving a texture similar to the rest of the stone (or use hand with glove).



SECTIONAL VIEW ROX WALL/BOULDER



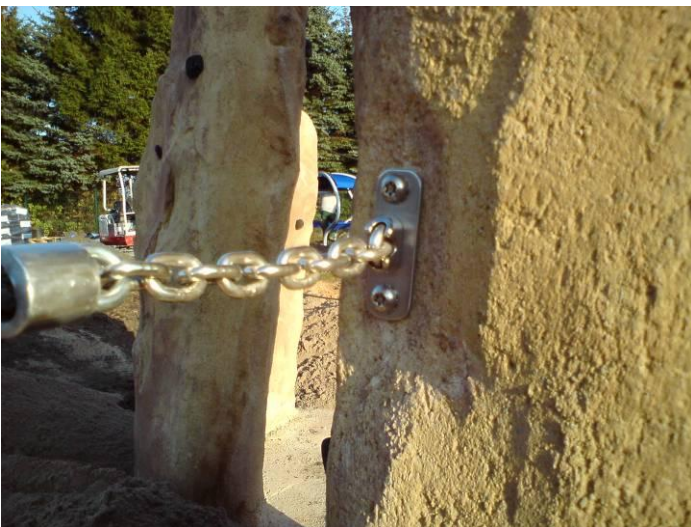


Net fixing



If too long
—
shorten chain...

all chains are
meant to be
150mm too long!



Joint filling

Where two or more elements are joined directly the gap is to be filled using the following method:

Using a tube of mastic (or suitable flexible gap filling material) fill all the gaps between the stones.

Once filled push the dry mortar provided into the filler covering it in its entirety. This should provide a consistent surface similar to that of the finished stones.

Where deeper gaps are visible they can be filled using the above method and then using a wet brush, wet the surface around the joint.

Mix the colored mortar to the consistency of a thick paste and then throw the mixed mortar paste into the gaps.

This can then be finished by roughly brushing over the mortar leaving a texture similar to the rest of the stone.

Surfacing installation

When installing any of the types of surfacing recommended make sure that the safety material is filled in tight to the elements to prevent accidents.

