

The DESOI Stocking Anchor System can be used to preserve historic buildings and dry stone walls as endangered living spaces.

Such structures serve as witnesses of their historic period and shape the landscape and cityscape: Historic buildings and walls have their own unique charm. And this charm should be preserved for future generations. The DESOI Stocking Anchor System makes it possible to stabilise existing heritage buildings with minimal intervention in the building material. The system offers a wide range of options. It can be used for positive or non-positive connections and for stabilising cracked components or masonry.



Fig. 1 Prefabricated stocking anchor system



Fig. 2 Stocking anchor system, full-section view

This application of the method for securing historic masonry structures (Test no. 6-21/1938b/12 of 10 January 2021), tested by Materialprüfungs- und Versuchsanstalt Neuwied GmbH, is relatively simple. After drilling into the masonry, the prefabricated stocking anchor is inserted into the drill channel and affixed in the appropriate position. Depending on the structure's requirements, the stocking can be installed in combination with two different prestressed anchors – with a threaded anchor made of V2A steel or with a concrete ribbed anchor (V4A steel), each including anchor plate (Fig. 3).

The choice between the two anchors depends on the required parameters. After mixing, the anchor mortar is filled into the stocking as a filling and binding material using a backfill packer, backfill piece or annular packer in accordance with the low-pressure method. The mortar connects the anchor to the masonry and fills any cavities in the structure. In doing so, the stocking prevents uncontrolled spreading of the filling material (Fig. 4). The result: optimal tensile strength while preventing additional pressure on the structure.



Fig. 3 Anchor plate detail

Dry stone walls in existing structures (Fig. 5) can be stabilised and maintained with the stocking anchor system. This enables preserving threatened habitats for certain animal species for the purpose of nature conservation and sustainability. The System can be used to counteract the deterioration of structures.



Fig. 4 Connection of separated wythes

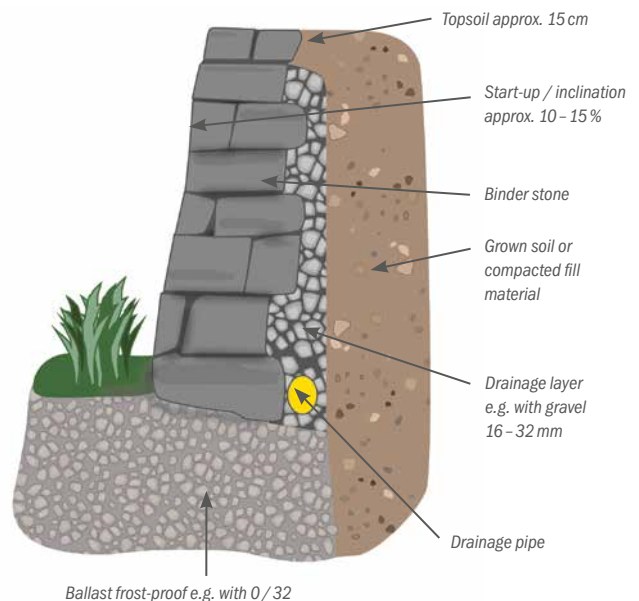


Fig. 5 Dry stone wall