



Stainless steel expansion bolt anchors similar to those used in industry for concrete and rock are very effective, can be used immediately but are suitable only for hard rocks such as granite. Picture Courtesy of Petzl



Adhesive bolt anchors are recommended for softer rocks, offer an excellent mechanical resistance but they are said to be tricky to set and require at least one day to cure.



EN 1.4401 (AISI 316) Rock hanger with round ring and carabiner. Picture courtesy of Raumer

Rock Climbing

There are thousands of bolting sport routes available for climbing fans. As this is an unregulated practice, carried out by practitioners who may not have the experience and skill required, accidents may happen, especially if the anchors are corroded and have thereby lost much of their load-bearing capacity. Aggressive environments are to be expected in most places and particularly on rock faces close to the sea in hot and humid tropical climates. Risk mitigation by visual inspection of bolts and anchors on-site is not reliable and replacement requires a lot of time and effort, in addition to the cost involved. Stainless steel anchors (preferably grade EN 1.4404/AISI 316L or better) provide a maintenance-free, lasting solution and guarantee the best safety conditions.