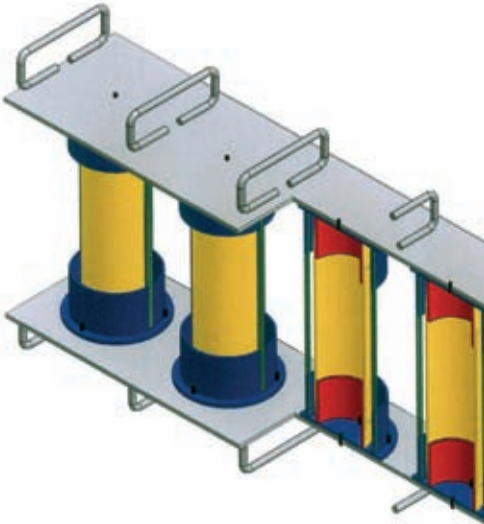
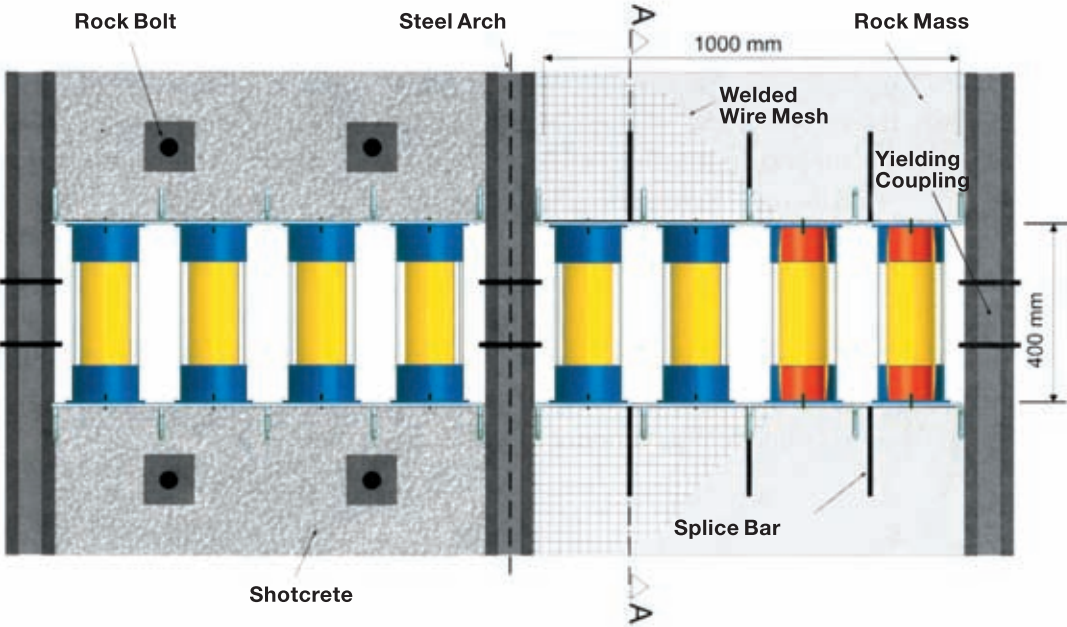


AT - LSC Lining Stress Controllers



Assembly AT - LSC-Lining Stress Controllers



Field of application

- Support for squeezing rock mass conditions
- Application in combination with shotcrete lining or concrete lining segments

System Description AT - LSC-Lining Stress Controllers

Specifications

AT - LSC-Lining Stress Controllers are adapted in terms of type, number, and length to the load-bearing capacity of the lining and the displacements of the tunnel wall. ¹⁾

Designation LSC-Lining Stress Controllers	A-II/3	A-II/4
Design load Yielding Element F_p [kN]	700	
Number of Yielding Elements [#]	3	4
Design Load F_{pTOT} [kN]	2100	2800
Deviation Load Cycle to Design Load tol_F [%]	+/- 15%	
Shortening required to reach the Design Load l_{pmin} [mm]	60	
Length [mm]	800-1000	
Width [mm]	250-350	
Height [mm]	430	

1) AT - LSC-Lining Stress Controllers with alternative dimensions available on request

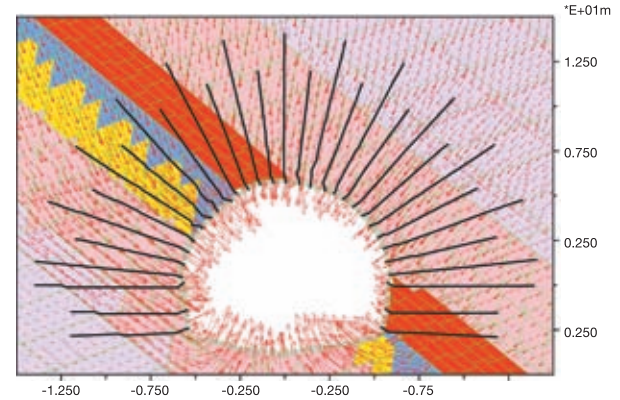


Material Types

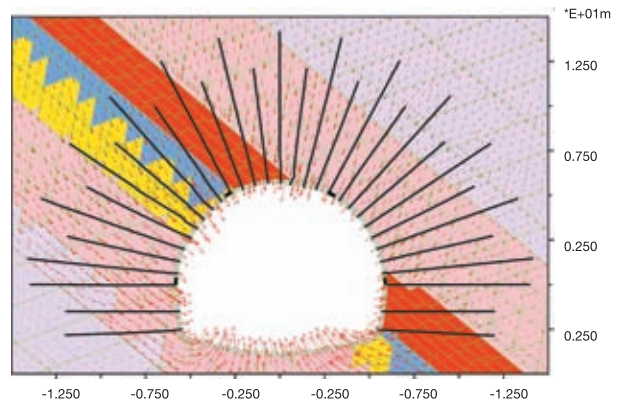
Greenschist		Fault Gouge	
Greenschist, sheared		Graphite Phyllite, sheared	
Greenschist, platy			

*E+01m
displacement vectors

Without AT - LSC-Lining Stress Controllers

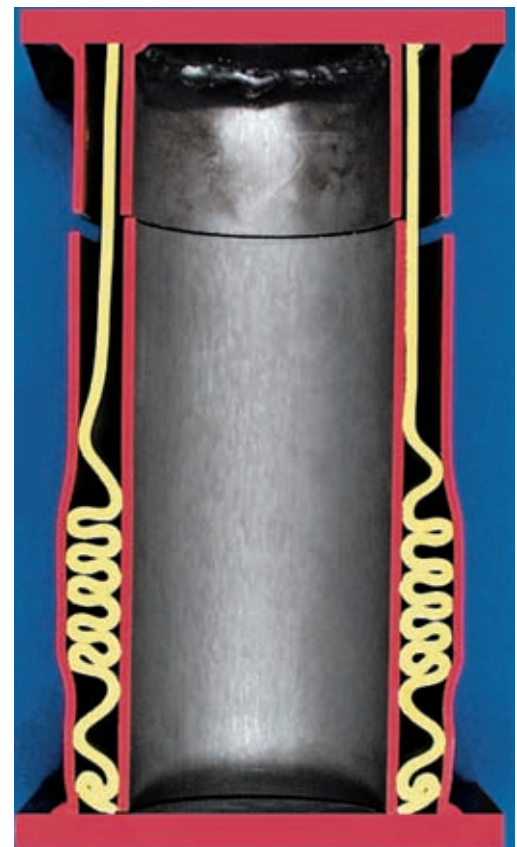


With AT - LSC-Lining Stress Controllers



Advantages AT - LSC-Lining Stress Controllers

- Warranty of supporting forces of the tunnel lining for squeezing rock mass conditions
- Controlled stress distribution and yielding ability
- Avoidance of overstraining of the tunnel lining in terms of rupture processes and consequential damages
- Optimum utilization of the load-bearing capacity of the shotcrete lining
- Well-defined load-deformation characteristics
- Displacement-controlled limitation of axial forces
- Project-specific adjusted geometry
- Tunable to the rock mass conditions by means of computer-aided simulation



Sectional view of a shortened AT - LSC-Lining Stress Controllers

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