

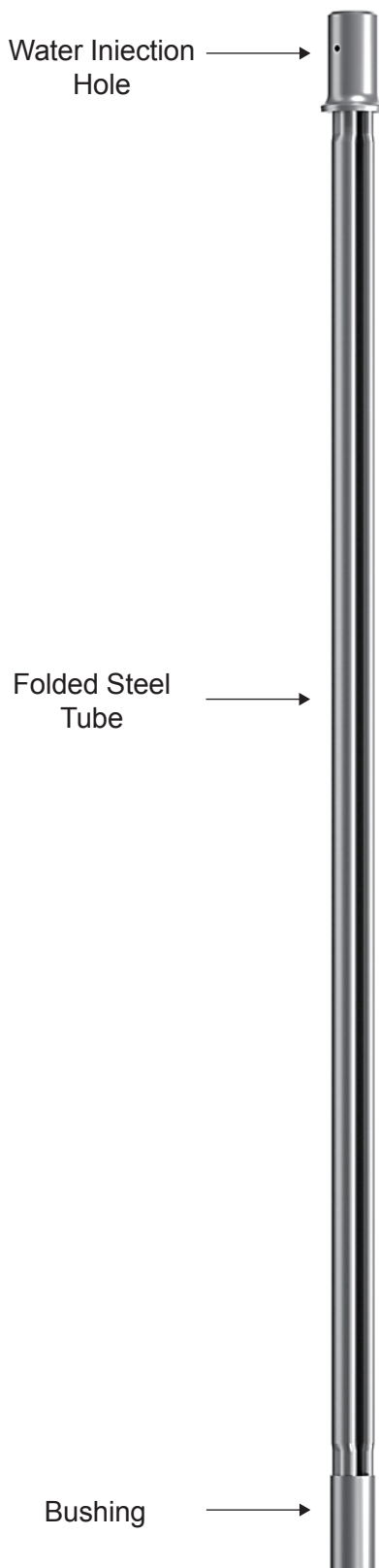
SWELLEX BOLT

Product catalogue



河北玖富工矿配件有限公司
HEBEI JIUFU INDUSTRIAL AND MINING PARTS CO., LTD

JIU FU Swellex Bolt



• Description

Swellex expandable rock-bolting system has gained wide recognition in the mining and tunneling industry. This unique rock bolt consists of a welded tube folded in upon itself, sealed at one end. It is re-expanded using a high pressure water flow provided by a special pump and adapter. The bolt is expanded inside the borehole drilled into the excavation wall. The installation process is easy and very similar to other rock bolt installation processes, making Swellex rock bolts accessible to all operators.

• Features

The Swellex rock bolt is made out of a welded steel tube folded on itself and sealed at one extremity, while the other extremity is set with a special head bushing used for inflation and retaining of the face plates typically used in rock bolting.

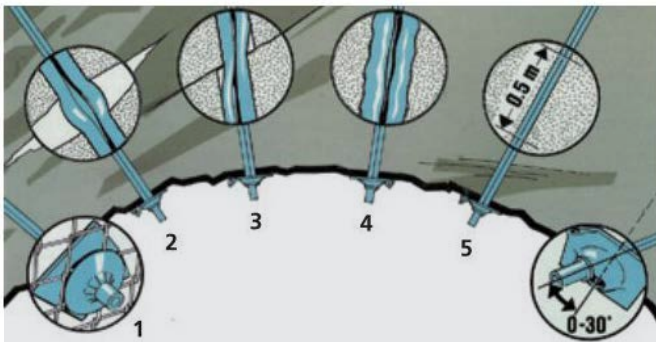
The expansion of the bolt, inside the drilled borehole, creates a friction and interlocking anchor, which provides instant reinforcement and support.

Swellex rock bolts can be considered as a full column support as they provide reinforcement and support on the whole length of the borehole.

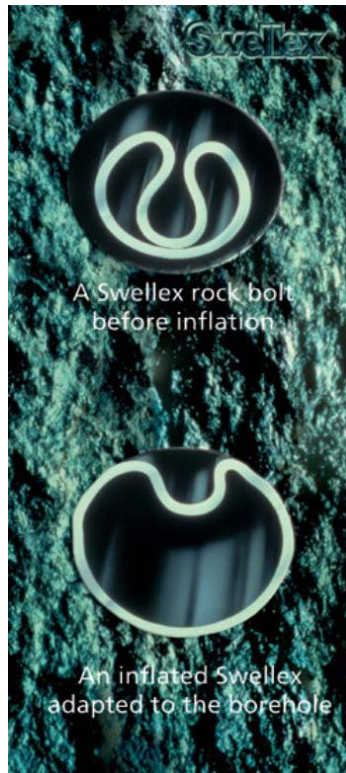
Due to its unique anchorage mechanism, the Swellex bolt can adapt to a wide variety of ground conditions and provide good to excellent anchor age capacity in most rock types. The steel profile can also adapt to shear movements, and in softer materials the Swellex bolt accommodates large shear displacements without failure.

The simplicity of the system can explain its performance. The operator simply drills a hole in the rock, inserts the bolt and then inflates it to a pre-determined pressure using a dedicated inflation system. The pump stops when reaching the recommended inflation pressure that guarantees the quality of the installation.

Swellex rock bolts can easily be pull tested. In fact, a Swellex rock bolt has the easiest pull test operation of any rock bolt type.



1. Swellex net washer for screening
2. Bridges gaps in the rock
3. Allows major shear movements in medium to soft rocks
4. Adaptability to the bore hole's irregularity
5. A 50 cm long inflated bolt can develop 100 kN friction



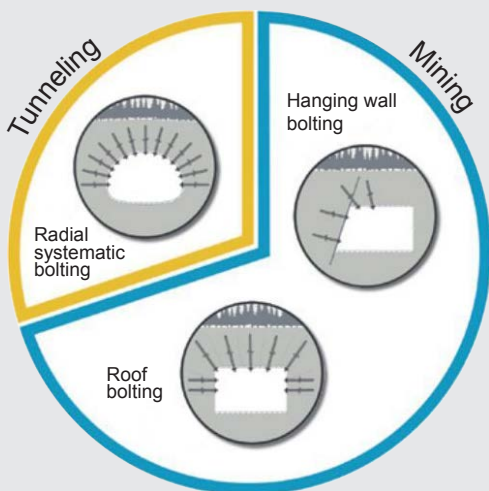
Friction and interlocking support of the whole length

• Applications

Swellex rock bolts are extremely versatile and can be used in a variety of excavation, from tunneling to mining. A very typical application in tunneling is to use Swellex as pattern bolts to support, reinforce or consolidate the periphery of an excavation. The density of bolting depends of the size of the excavation and the self-supporting qualities of the rock mass.

In mining, common applications like roof and hanging wall bolting have adopted. Swellex as a rapid and performing stabilisation device.

Because Swellex is expanded inside a borehole smaller than the folded tube circumference, it is not sensitive to hole diameter, rock quality or water conditions and provides a good anchorage capacity in most tunneling and mining conditions.



Technical Data

JIU FU Swellex Bolt	PM12	PM16	PM24
Minimum Breading Load (kN)	110	160	240
Minimum Elongation A5	10%	10%	10%
Minimum Yield Load (kN)	100	130	130
Inflation Water Pressure	300bar	240bar	240bar
Hole Diameter (mm)	32-39	43-52	43-52
Profile Diameter (mm)	27	36	36
Tube Thickness (mm)	2	2	2
Original Tube Diameter (mm)	41	54	54
Upper BushingDiameter (mm)	28	38	38
Bushing Head Diameter (mm)	30/36	41/48	41/48
Length (m)	Weight (kg)		
1.2	2.5		
1.5	3.1		
1.8	3.7	5.1	7.2
2.1	4.3	5.8	8.4
2.4	4.9	6.7	9.5
3.0	6.0	8.2	10.6
3.3	6.6	8.9	12.9
3.6	7.2	9.7	14.0
4.0	8.0	10.7	15.6
4.5	9.0	12.0	17.4
5.0	9.9	13.3	19.3
6.0	11.9	15.9	23.1

Products

