

## QUICK-CHEM™

### HARD ROCK MINING – WEST COAST RESIN INSERTION SYSTEM

#### DESCRIPTION

Quick-Chem™ is a patented system developed to remotely install resin capsules into boreholes for rock bolting.

The Quick-Chem system consists of a specially designed cap suitable for attaching to 25 mm nominal diameter, 26 mm diameter, 30 mm diameter and 36 mm diameter Lokset® resin capsules.

In addition, the insertion tube consists of a threaded R32 adaptor sleeve (that locates in the drill coupling of the Jumbo drifter in seconds) and is secured to a 3-meter length of clear, high strength, flexible plastic tubing.

#### APPLICATION AND USES

The Quick-Chem system is used in conjunction with Lokset X2 resin capsules to ensure quick, safe, efficient and remote insertion of the resin capsule into a bolt hole.

The Lokset X2 resin capsules are typically installed using development Jumbos in underground headings with an excavation height of 4–6m, where hand insertion is not safe or practical.

The X2 resin capsule system assists in achievement of 100% encapsulation using a single resin unit rather than multiple capsules.

#### ADVANTAGES

- ▶ **SAFE:** enables resin capsule to be inserted in bolt hole from remote location under supported ground
- ▶ **QUICK:** no requirement for lifting baskets or manual resin insertion, capsule can often be placed in insertion tube from operator's cab
- ▶ **EFFICIENT:** up to 200-hole insertions can be achieved from each tube
- ▶ **EASY TO USE:** clear tubing indicates position of resin capsule

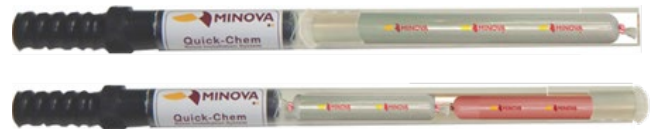


Figure 1 - Quick-Chem™ System

- ▶ **ROBUST:** strong and flexible insertion tube
- ▶ **VERSATILE:** can be used with most drill rigs such as Robolters, Jumbo's, Boltec etc and in most rock bolting situations
- ▶ **ADAPTABLE:** can be inserted through mesh and broken ground
- ▶ **RELIABLE:** assists the resin capsule in reaching the back of the hole undamaged

#### Advantages of X2 capsules

- ▶ Enables efficient use of the Quick-Chem installation system
- ▶ Eliminates requirement to use 2 separate capsules
- ▶ No capsule connectors or joiners required.
- ▶ Quick and easy to handle
- ▶ Supplied folded at join in capsule carton
- ▶ Impossible for join to separate

For more detailed information refer to Lokset X2 resin capsule technical data sheet found on [www.minovaglobal.com/apac](http://www.minovaglobal.com/apac).

#### EQUIPMENT

The Quick-Chem system with Lokset X2 resin capsules is compatible with most bolting rigs in use in Hardrock mines:

- ▶ Jumbos
- ▶ Robolter
- ▶ Boltec

**APPLICATION METHOD**

- 1) Securely attach appropriate Quick-Chem cap to the end of the Lokset resin that is to go at the top of the hole. (Ensure cap is attached to the Fast end of the capsule that goes in the hole first).
- 2) Place the capsule with cap attached in the appropriate Quick-Chem inserter tube. Often the operator can place the capsule in the tubing from the Jumbo cab.
- 3) Place the tube in the drifter. (After the first placement of the tube in the drifter the tube can remain in position).
- 4) Locate the hole with the tube and push up the hole until the resin capsule cannot be seen, or a short length is left protruding (e.g. 50 mm) to relocate the hole with the bolt.
- 5) Withdraw the tube. The capsule is securely located in the hole ready for bolt insertion.

**PACKAGING AND TRANSPORTATION**

The Quick-Chem caps are normally packaged in plastic bags placed within the Lokset resin cartons. Caps to suit nominal 25mm, 26mm, 30mm and 36mm diameter capsules are available.



Figure 2 - Insertion Tubes & Caps

**Quick-Chem Inserter Tubes with Sleeve**

Supplied individually wrapped in bundles of 20 units. The tube and sleeve can be purchased separately if required.

**26 mm Quick-Chem Cap and Tubes**

26 mm Quick-Chem caps (coloured yellow) are suitable for use with 26 mm QUICK-CHEM insertion tubes (tinted blue) in 33-35 mm diameter holes.

Typical dimensions:

<b>Internal Diameter</b>	26.80 – 27.50mm
<b>Outer Diameter</b>	31.40 – 31.80mm
<b>Length</b>	3.15 m (including sleeve)
<b>Cap / Tube Colour</b>	Yellow Cap / Blue sleeve

**30 mm Quick-Chem Cap and Tubes**

30 mm Quick-Chem caps (Clear coloured flip top) are suitable for use with 30 mm QUICK-CHEM insertion tubes in 35 mm diameter holes

Typical dimensions:

<b>Internal Diameter</b>	30.35 – 30.85mm
<b>Outer Diameter</b>	33.50 – 33.75mm
<b>Length</b>	3.15 m (including sleeve)
<b>Cap / Tube Colour</b>	Clear Cap / Clear Sleeve

**36 mm Quick-Chem Cap and Tubes**

36mm Quick-Chem caps (coloured red) are suitable for use with 36 mm Quick-Chem insertion tubes in 45 mm diameter holes.

Typical dimensions:

<b>Internal Diameter</b>	36.30 – 36.80mm
<b>Outer Diameter</b>	40.75 – 41.25mm
<b>Length</b>	3.75 m (including sleeve)
<b>Cap / Tube Colour</b>	Red Cap/ Red Sleeve

**STORAGE AND SHELF LIFE**

Tubes should be stored out of direct sunlight, under cover and no other material or other tubes stacked on top during storage or transport. Ideally, they should be stored vertically and if not vertical on a continuously level surface to avoid bow or bends in the tube. During transport underground, small quantities can be supported with a straight length of timber and preferably taped but not tightly strapped to avoid damage to tubes.

**HEALTH AND SAFETY**

For further information see the Lokset Safety data sheet on [www.minovaglobal.com/apac](http://www.minovaglobal.com/apac)

**TECHNICAL SUPPORT**

We provide technical advisory service by a team of specialists in the field. The service includes on site assistance and advice on evaluation trials and laboratory work.

## DISTRIBUTOR / MANUFACTURER

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