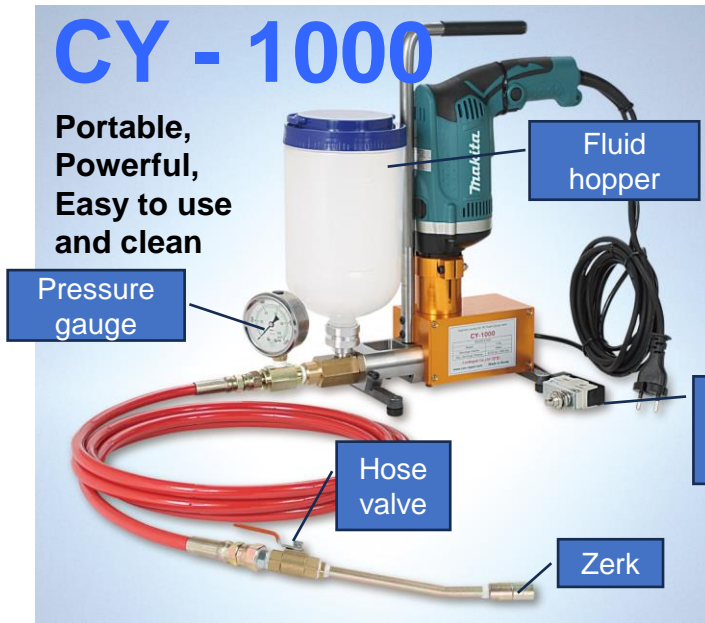


# Injection Pump CY-1000

## Operational Guide

### CY - 1000

Portable,  
Powerful,  
Easy to use  
and clean



High pressure (60-10 MPa)  
grouting injection pump for  
epoxy and polyurethane foam

Recommended Pressure 30-50MPa  
Max. Flow Rate 400cc/min

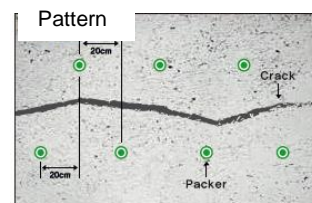
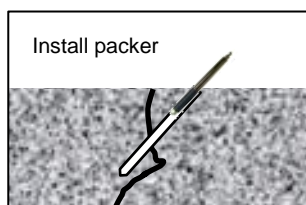
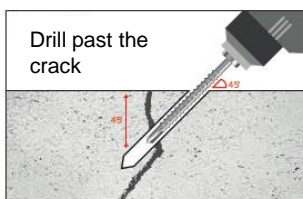
### Site Preparation:

Cracks to be injected should be damp.

The injection fluid foams on contact with water. If the substrate is dry, water should be installed into the crack system before the injection process can take place. A separate low pressure water system should be considered for this purpose.

### Install Packers:

Drill holes along the side of the crack at a 45degree angle to intersect the crack midway through the substrate. Spacing of the injection ports depends on crack width, but normal range 150 – 250mm. Tighten packers with a spanner or socket.



## Pump Preparation:

### (a) First time Use:

Place 1 litre of the injection fluid (CYH-500) into the hopper of the pump. Make sure the hose valve is open and the Zerk tip is directed back into the hopper. Run the pump until the fluid is recycling back into the hopper. Stop the pump and close the hose valve.

### (b) Regular Use:

Pump the storage oil into a waste container. Remove the storage oil from the hose by adding a litre of injection fluid to the hopper. Keep pumping into the waste container until the injection fluid becomes visible entering the waste container. Turn off the pump and close the hose valve.

## Injection Process:

Connect the Zerk coupler to the packer tip, some force may be required. When attached, open the hose valve and start the pump for a brief period. Check the pressure valve on the pump. Usually about 30 – 40MPa is required. The Zerk connection may leak if there is not enough pressure. As the fluid enters the crack the pressure will drop, top up the pressure intermittently to approximately 40MPa.

At this stage, you should see foam exiting the crack up to 150mm away from the packer.

Close the hose valve to avoid spillage and disconnect the Zerk coupler. Move it to the next packer. Open the hose valve and repeat the process above.

## Pump Cleaning:

A good cleaning strategy is essential to the safe and trouble-free operation of the pump.

**Requirements:** Clean Container; Waste Container; Xylene/Gun Wash; Engine Oil

Pump the unused Injection fluid from the hopper into a clean container to store the fluid for next time. Remove the injection fluid from the hose by adding a litre of Xylene solvent or Gun Wash to the hopper. Keep pumping until the solvent is visible entering the container. Redirect the solvent back into the hopper and continuously run and recycle the solvent for 3 minutes.

Pump the solvent into a waste container and follow up with half a litre of engine oil and recycle when the oil is visible. Turn off and close the hose valve for storage. The oil will keep moisture away and preserve the integrity of the system until the next use.

## NOTES:

(a) The remote 'dead man's switch' is only used intermittently during the injection process. The only time the pump should run continuously is during the cleaning or recycling process.

(b) The valve on the pressure hose is only closed when changing from one packer to another. **The hose valve should not be closed when operating the pump for any period** of time otherwise damage to the hose and valve may occur.

(c) During site preparation do not allow the pump or fluid to contact water.