



MATEX
CONTROL CHEMICAL
FLUID INJECTOR



10X
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The easy way to manage your drilling fluids.

MATEX FLUID INJECTOR INSTALLATION

All Matex Fluid Injection Systems should be installed with the discharge side of the injector connected to the Bit Air. The air supply can be connected in a combination of ways:

Best:

If the bit air is greater than 35 PSI the air supply to the Matex Fluid Injector may be taken from the bit air to a maximum of **300 PSI**. If the air supply is higher then an air/oil separator/regulator should be used. Make sure this is installed after the butterfly valve and before the discharge inlet from the Matex Fluid Injector. This will ensure that the Matex Fluid Injector will only operate when the bit air is activated.

The pump has a 2 - 1 multiplier. There for, if 200 PSI input then there would be a 400 PSI discharge, 300 PSI input would see a 600 PSI discharge.

Acceptable:

When the air supply to the Matex Fluid Injector can be made to the accessory air. The regulator should be set at a PSI greater than that of the bit air. Example: if the bit air is 35 PSI, the regulator should be set at 20 PSI greater. The timer should be connected so the power supply is activated with bit air. If this is not possible it may be necessary to install a pressure switch in the bit air supply after the butterfly valve. This will ensure that the Matex Fluid Injector will only operate when the bit air is activated. The timer can then be connected to any switched power supply that is on when the drill is operating.

Discharge Line:

The discharge line of the Matex Fluid Injector should be installed into the water injection line after the water injection pump and before the point that the water enters the Air line. **Make sure to have a check valve on the discharge line immediately before the fluid discharge enters the water line (supplied).**

It is best to precharge the discharge line before attaching to the water line as it will take a few minutes to fill the line

IT IS IMPORTANT NOT TO SET PUMP DOWN ON AN UNCLEAN SURFACE AS IT WILL PICK UP DIRT AND DEBRIS.

MATEX FLUID INJECTOR

ELECTRONIC TIMER:

The timer operates on 12/ 24 volt DC and draws less than 1 amp power. The fuse is located on the side of the timer control box and is accessible from the outside. The timer control assembly can be removed by undoing the four Allen head bolts. The timer control assembly is **NOT** field repairable and must be returned if found faulty.

WIRING:

12 or 24 volt DC

RED is POSITIVE

BLACK is NEGATIVE

SOLENOIDS:

The solenoids are located next to the timer and they operate on 12/ 24 volt DC. This allows the air to pass to the inlet side of the pump or mixing motor when activated by the timer.

REGULATOR - MIXER:

The regulator can be adjusted by pulling out on the black knob, turn clockwise to increase or counter clockwise to decrease. **The working pressure should not be less than 35 PSI, no more than 80 PSI** as this only operates the mixer.

PUMP:

The injector pump has a working pressure 35 to 300 PSI (120-280 PSI is the optimum).

The pump is located under the face plate and can be removed when pail is empty. The pump pressure is two to one multiplier, example, 200 PSI in = 400 PSI out. The inlet side of the pump is connected to the outlet side of the timer. The discharge side of the pump is connected to the copper pipe joined to the underside of the face plate. **The discharge line should never be larger than a #6 hydraulic hose**, as this may cause slow fluid flow in the hose and an increase in potential contamination of the fluid.

MOUNTING BASE PLATE:

The mounting base plate is made of aluminum, and should be fastened down to eliminate vibration.

DO NOT WELD ON BASE PLATE!

Place the pail in the base plate. Remove plastic lid from pail. Place face plate and pump assembly into the pail. Once the face plate is seated on the pail, fasten the face plate to the base plate to secure and seal the pail in place.

MATEX FLUID INJECTOR: TROUBLESHOOTING

TIMER:

Ensure the push button switch is in the **on** position. The push button switch should flash.

Check the fuse to make sure it is not burned out.

Check the power supply.

If everything has been checked, and still not functioning timer will have to be replaced.

Disconnect power supply, remove air supply and air inlet line to pump, then remove four Allen head bolts on back side of Matex Fluid Injector to disconnect timer assembly.

PUMP:

To check if the pump is operating:

Turn the timer to the **OFF** position and remove the discharge line from the top of the tank.

Turn the timer to the **ON** position; the mixer will operate for 30 seconds and then the pump will start. The oil should discharge a few inches high, depending on the air supply setting.

If oil does not appear remove the air supply line from the inlet side of the pump. Operate the timer to check if air is supplying the pump.

If air is not discharging, check the solenoid.

If air is discharging at the inlet side of the pump and the timer is operating properly, replace the pump.

SOLENOID:

Ensure the solenoid is operating. There should be a clicking sound or air should discharge from air supply pump.

Check the air supply.

If air is not discharging from the solenoid, then the timer assembly will have to be replaced.

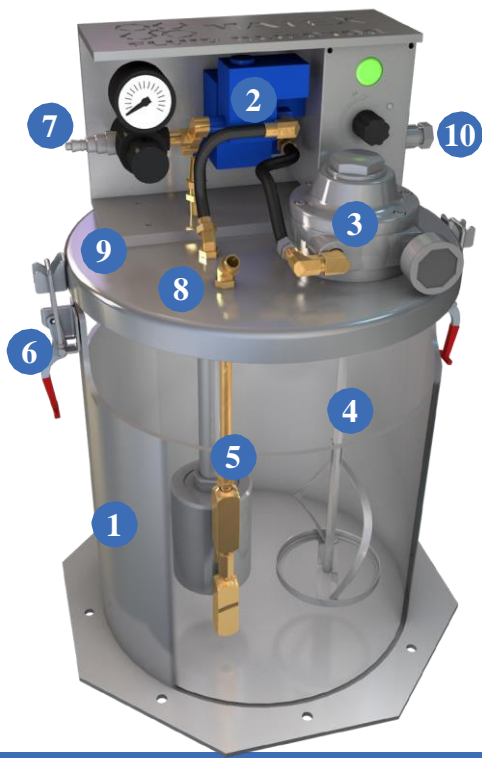
REGULATOR:

Check the regulator for a working pressure greater than 35 PSI (**MAX 80 PSI**).

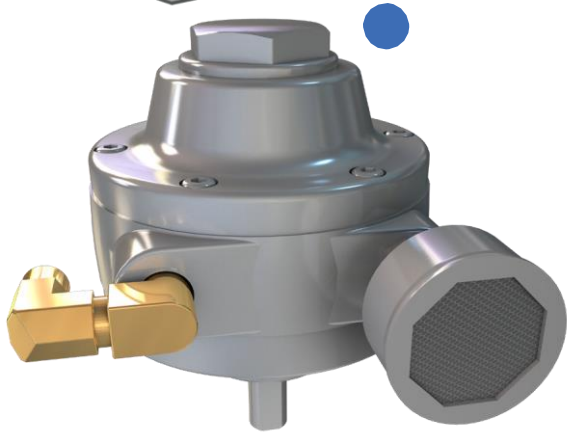
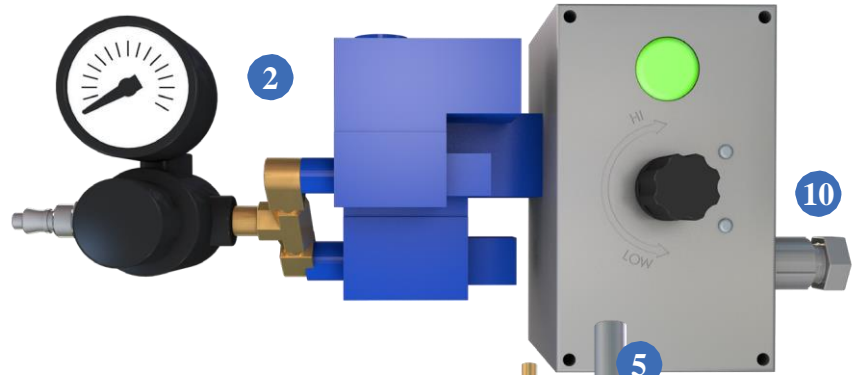
The regulator operates the mixer motor only!

FOR FURTHER INFORMATION CALL:

**For further information please call your local distributor or Matex Control Chemical 7016 – 30 St.
SE, Calgary, Alberta CANADA, T2C 1N9 Ph(403) 720-7044 - Toll Free 1-800-267-6840
Fax(403) 720-4951 -Email: brianc@controlchemical.com -Website: www.matex-ccc.com**



- 1 MOUNTING BASE PLATE
- 2 AIR REGULATOR/SOLENOID/TIMER ASSEMBLY
- 3 AIR MOTOR
- 4 MIXER
- 5 PUMP ASSEMBLY
- 6 SECURE CLAMP
- 7 AIR INLET
- 8 FLUID DISCHARGE
- 9 TOP PLATE
- 10 POWER SUPPLY



MATEX FLUID INJECTOR

The Matex Fluid Injector is AIR operated and TIME activated. It is completely self-contained and easy to install. The Matex Fluid Injector can be used to inject a wide range of different products such as Tri-Lube, RDO-302 ES, Hole Control, Liquid polymers, Foam etc. **If injecting foam, a Matex soluble lubricant must be used to avoid rust that could be caused from the foam.**

The pump is designed to deliver a measured amount of product each injection to ensure a proper mixture. The pump has been designed with only one moving part to ensure low maintenance.

The timer assembly is available in a range of different voltages and is designed to measure the exact amount of injection necessary to deliver the amount of product desired. The timer has a setting dial on the face of the timer for the ease of increasing or decreasing the amount of product necessary, or timer can be pre-set for lubricating at a set rate.

All parts are warranted of manufacturers defects for a period of one year of normal operation using only Matex products. For warranty and return policy information please contact brianc@controlchemical.com.

Pump is not warranted if dirt and debris is found in the check valves or pump.

Note: The air mixing motor must be oiled with two drops of an air oil daily. This air oil can be sourced from any local supplier of hand held air tools worldwide

PUMP SPECIFICATIONS:

Air supply working pressure 35 psi - 300 psi
Pump discharge pressure 2 X 1 multiplier

TIMER SPECIFICATIONS:

Voltages 12 or 24 volt DC
Pump volume 1 to 3 Litres per hour

SHIPPING DIMENSIONS

18"W x 18"L x 26.5"H
46cm x 46cm x 67cm

SHIPPING WEIGHT

81lbs
37kg