

EMD Armature

## Installation

- Before starting installation process turn thermostat to 100° F.
- Allow this to heat for approximately 45 minutes.
- Once heat has been applied for 45 minutes plug in air source.
- Adjust regulator on glycerin holding tank to 20 Psi max, to help with the flow of glycerin.
- Place, one, open high pressure (red) line into bucket.
- Open needle valve for that line.
- With line in a bucket begin to increase air pressure to activate pump.
- Glycerin should be visibly pumping out of line.
- Allow fluid to purge for a few minutes.
- This introduces warm fluid to the system, so cold fluid is not being pumped into pinion cavity.





- Roll empty fixture bed forward, to allow the armature to be loaded in fixture.
- Be sure nuts are tight before loading.



- Load armature in center of fixture



- Once armature is in fixture, remove lifting device.



- Place pinion in bore of armature.
- Place ram in bore of pinion.

- Once ram and pinion are installed roll fixture bed back to react on the top portion of the fixture.
- Attach two high pressure (red) hoses to pinion adapter.
- Attach hydraulic hose to ram.
- Place indicator device on ram and armature, to take advancement reading.





- Connect air to high pressure pump cart.
- Turn on both pumps, by increasing the the air pressure through the air regulators
- Open both high pressure valves
- Glycerin should be visibly protruding from armature bore.
- Ensure that the high pressure pumps continue to run while advancing hydraulic ram.
- At this point advance the pinion .100" by advancing the hydraulic ram.
- Let sit for 2 minutes.
- Advance another .010"
- Let sit for 2 minutes.
- Continue this process until final advancement depth is achieved. (.157 + .008 - .000)



- Final gauge reading on hydraulic pump should be around 5800 PSI.



- Once final advancement reading is achieved turn off high pressure glycerin pump, while holding pressure on hydraulic pump.
- This pressure must be held for an hour to ensure pinion does not slip.



## Removal

- When removing the pinion from armature the set up will be exactly the same as the installation, except there is no need for an advancement indicator.
- First, put approximately 2,000 Psi on hydraulic ram.
- Begin to turn on both high pressure pumps.
- Open both needle valves.
- Increase pressure until glycerin emerges from armature bore, indicating that the pinion is free from bore.

