LIBERTY LIFT

TOOLWORX SUITE

CHEMICAL BYPASS

FOR ROD, ESP AND GAS LIFT WELLS

CAN YOU CHEMICALLY TREAT BELOW THE PACKER?

IF YOUR ANSWER IS NO, BYPASS THE PACKER WITH THE CHEMICAL BYPASS!

WHY INSTALL PACKERS?

Fluid, gas and solids separation requires a physical barrier to redirects fluid, gas and solids away from production equipment. Downhole packers are that physical barrier. The casing ID, tubing OD and top of the packer can be chemically treated because the tubing-casing annulus is isolated. Can you chemically protect below the packer? Let's discuss ...

CHEMICAL BYPASS FOR ROD LIFT WELLS

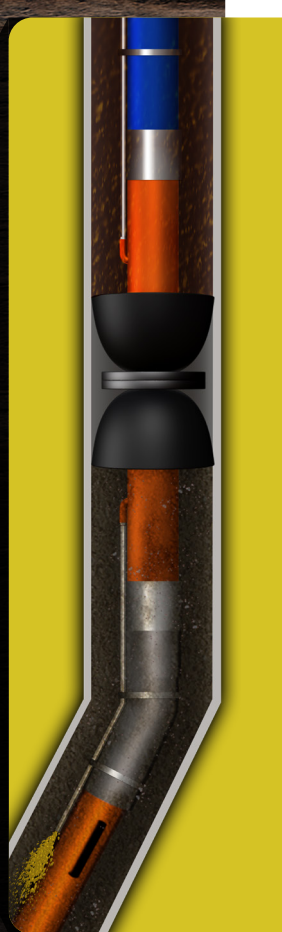
Tubing packers installed in Rod Lift wells use the tubing-casing annulus to maximize gas separation. Downhole separation equipment from WellWorx utilizes an NR-1 inverted cup-style packer that triples this separation area. But this NR-1 packer or any packer keeps chemical treating from reaching perforations and equipment below the packer. The only way to treat below the packer is to shut down production. With a Chemical ByPass and capillary string, you will produce and chemically treat equipment and perforations below the packer.

CHEMICAL BYPASS FOR ESP WELLS

Many ESP wells operate with a desander installed below a packer to act as the intake. Liberty Lift Solutions recommends the Helix Sand ByPass for strength and durability. This setup forces gas to pass by the ESP. The packer also prohibits chemical protection below the packer. The Chemical ByPass again allows surface chemical to bypass the packer and chemically treats all downhole equipment and perforations below the packer.

CHEMICAL BYPASS FOR GAS LIFT WELLS

Conventional Gas Lift wells operate with a traditional packer set above the perforations. The operating gas mandrel, tubing and casing above the packer can be chemically treated by pumping down the tubing-casing annulus through a mandrel and up the tubing. These chemical treatments usually do not disturb production but effectiveness is low due to the chemicals ability to get to bottom. Pumping chemical down the tubing will access all equipment and perforations below the packer but again halts production. With the Chemical ByPass, producers can chemically treat below the packer and access perforations without stopping production.



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HOW IT WORX

1. The Chemical ByPass is conveyed on tubing with a capillary string. This 0.25-inch capillary string is secured to the tubing with bands or clamps and is connected to the inlet port on the Chemical ByPass.

2. Chemical enters the inlet port on the top mandrel above the packer and exits the outlet port located on the bottom mandrel below the packer. This outlet port connects to a discharge capillary string and check valve. The length of the discharge capillary string and check valve is determined by the operator.

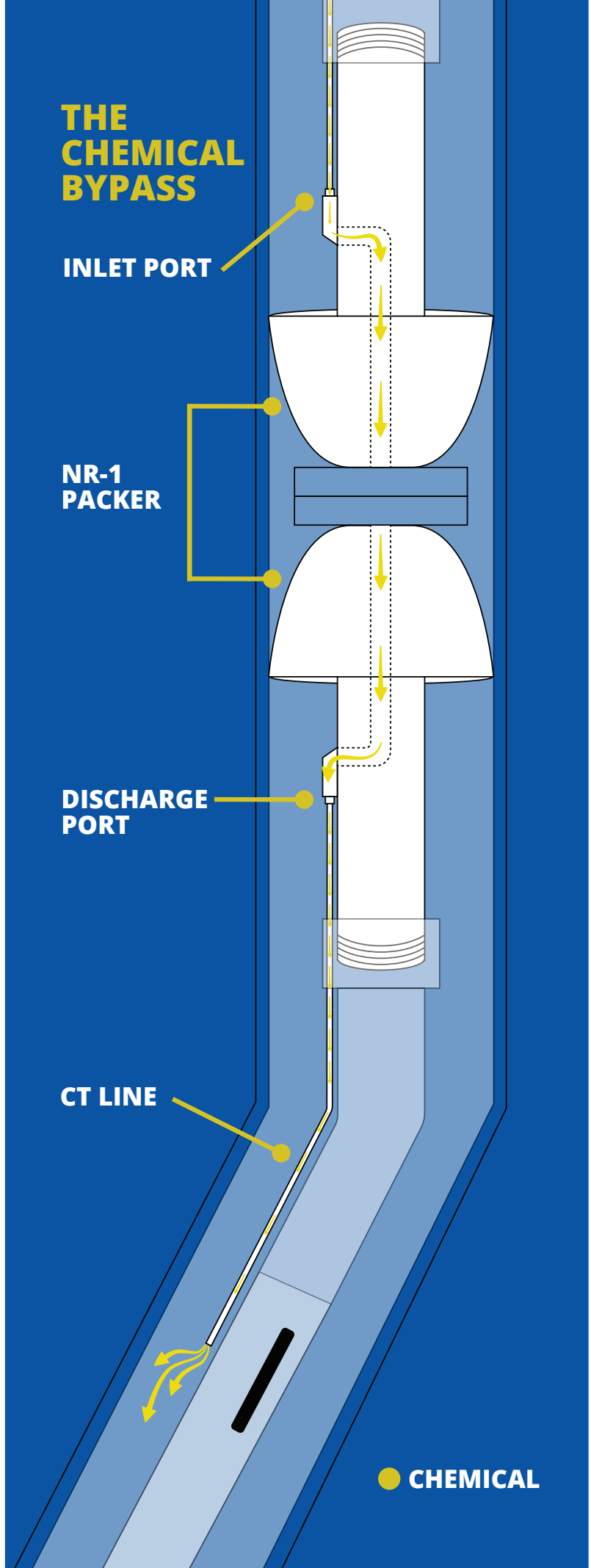
3. Maximum capacity of a 0.25-inch capillary string is approximately 32 gallons per day. At the surface, the capillary string is connected to a surface chemical injection pump.

PACKER OF CHOICE

With the Chemical ByPass Adaptor Kit, the operator's packer of choice can be adapted to allow for effective chemical bypass from surface. The Chemical Bypass Design Kit Includes:

- Two (2) Female x Female 2-3/8" or 2-7/8" threaded Tubing Mandrels
- External Capillary String ports on each Mandrel
- Internal Capillary String connecting the external ports of the bypass

LIBERTY LIFT SOLUTIONS

DOWNHOLE TOOLS

3509 South County Road 1210, Midland, TX 79706
Questions? Please call us at 432.618.0199
downholetools@libertylift.com • **libertylift.com**