

# Lessons Learned Contribute to Success

Pense Brothers has earned its reputation as an industry leader

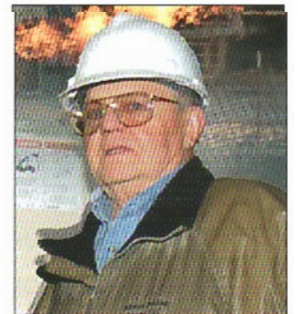


**I**t was like putting the cart before the horse. In 1962, Ron Pense signed a contract to perform exploratory work in Missouri. There was only one problem – Pense, who was an experienced driller, didn't own a drill rig. He found a solution when his brother Clifford agreed to become a financial partner. As a result, Pense Brothers Drilling Co. was born.

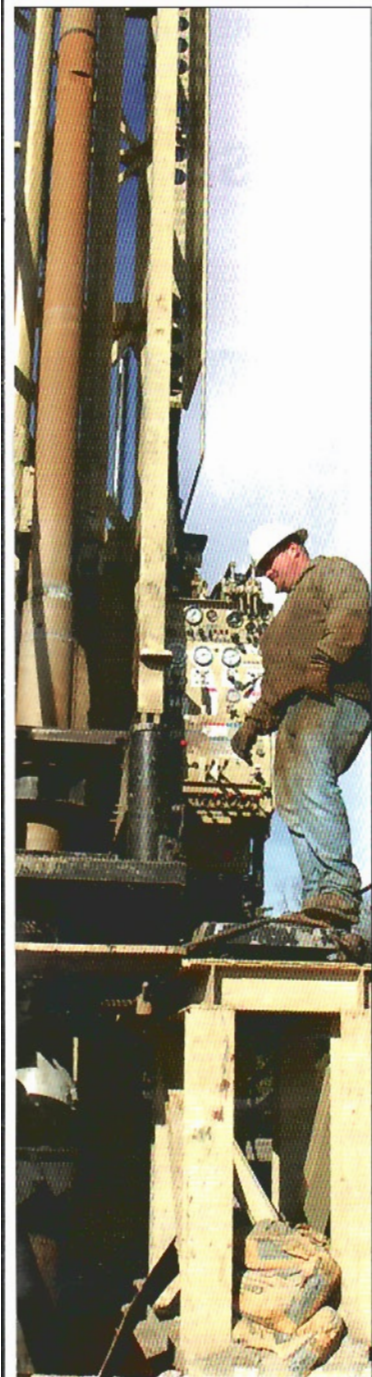
Today, Pense Brothers, headquartered in Fredericktown, Mo., owns 11 Atlas Copco RD20 drills and works in Alabama, Arkansas, Colorado, Missouri, Utah, New Mexico and Oklahoma. The company specializes in drilling shallow natural gas wells, generally contracting to drill the initial hole to depths of 3,000 to 4,000 feet. A conventional

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– **Ron Pense**  
president,  
Pense Brothers Drilling Co.  
Fredericktown, Mo.



*Atlas Copco*



drill then moves onto the site to continue drilling an additional 3,000 to 4,000 feet horizontally.

By using RD20 drills, Pense Brothers is able to move onto a site, drill a hole in less than a week, and move on to the next site. Because the RD20 is a self-contained drill, teardown, traveling to a new site and setting up takes less than 24 hours. That efficiency helps the company stay on schedule and maintain profitability.

A typical rig has three, four-man crews each working 12-hour shifts. Each crew works two weeks on and one week off. "Our customers usually specify a four-man crew," Ron Pense says, "but we have found that it's also more efficient and safer."

Because the rigs have multiple operators, it's important that they are operator friendly. "We use RD20 drills because they are easy to use and operate smoothly," Pense says. "We've got good people and we want to keep them."

Pense Brothers also receives footage incentives, so reliability and ease of maintenance are critical. Because all of the components on an RD20 are easily accessible, Pense says his drills are easy to maintain.

Although Pense Brothers works in a band of states stretching across the continent, drilling is similar in most areas. "Nevertheless, each hole is a little different," Pense says, "we use the same set-up from Arkansas to Colorado."

The first 500 feet is drilled with a 12-1/4-inch Secoroc QL 120 DTH hammer bit. Pense Brothers uses two 8-inch stabilizers above the hammer to add weight. The hole is then cased with 9-5/8-inch Range III casing, which has threaded and couple ends. The RD20 uses a wishbone device to pick up and thread the joints of the casing. The surface casing is then cemented in place.

Next, the crew drills an 8-7/8-inch hole to the specified depth using a Secoroc TD 90 DTH hammer and slightly concaved 8-7/8-inch bit. They use the hammer drill and bit to about 3,000 feet and switch to a tri-cone bit to reach TD.

The DTH hammer drills three to four times faster than the tricone bit, Pense says, so they stay with it as long as possible.

"We always use Secoroc bits because of their dependable performance," Pense adds. Pense Brothers changes 8-7/8-inch bits every hole.

Having reliable equipment and well-trained crews are among the many lessons that have contributed to Pense Brothers' 45-year run of success.



## Formation:

**Varies from shale in Colorado to hard rock in Alabama.**

Typical Hole:

- 12-1/4-inch first 500 feet
- Cased with 9-5/8-inch Range III casing
- 8-7/8-inch to TD, typically 3,000 to 4,000 feet

"The potential for downtime is too great, and being down costs us more than we would save by rebuilding a bit. To shank a bit at 3,000 feet just isn't worth it!"

## The RD20 Advantage

- Reduced transport time and cost
- Less site preparation time and cost
- Self-contained, extremely mobile rig
- Smaller footprint
- Reduced set-up and tear-down time and cost
- High performance with exceptional versatility
- Less loads to build a location
- Patented derrick and feed system
- Air rotary/DHD/mud rotary compatible
- Air piping @ 1500 psi for off-board auxiliary and booster compressors
- Mud piping @ 1500 psi for auxiliary mud systems
- Superior sales, service and support in over 50 countries