

## Golf course irrigation installation

# A family affair for 'Formost'

"Everyone has to find a specialty to be successful these days," says Ken Cloud, and his Formost Construction Company has certainly been successful in carving out its particular niche. Formost, headquartered in Venice, California, is one of the top two installers of golf course sprinkler irrigation systems in the country and, Cloud says, probably installs more systems on existing courses than anyone else.

"You've got to be really good at one specific thing," Cloud explains, "and the only way to have that kind of knowhow is to do it every day. That's why we specialize in golf course irrigation only, and after almost 30 years in business, we know what we're doing."

Much has happened to golf course irrigation since the Clouds first started in business in 1937, and the family has been a part of the changes. "When my father started out putting sprinkler systems in residential lawns and gardens, I used to thread galvanized pipe by hand," Ken says. "When asbestos-cement pipe came out, we thought that was the living end, but we didn't reckon on plastic pipe, which has now revolutionized the industry."

Ken is president of Formost, the twelve year successor to the business the Clouds have been in for 28 years. It is truly a family business, involving one of Ken's brothers and also his three sons and numerous nephews. His oldest son, Charles "Scott" is in charge of Western Division. "Right now we have three generations of Clouds in the business," he beams.

The Clouds graduated from residential work, mostly on irrigation systems for the estates of the wealthy, like movie stars Robert Stack and Dick Powell, to freeway and commercial work back in the 50's.

In the early 60's the family busi-

ness began to move toward golf courses, where the market was wide open and growing. "There might be four companies in the entire field doing strictly golf courses," Ken says. "We saw a market for an outfit that would do a better job, faster, and install consistently reliable equipment," he explains. "In other words, the 'Formost' golf course irrigation installer, and that is what we've become."

But climbing to that pinnacle involved a lot of investment, hard work, and especially inventiveness. Ken, a born inventor, started early adapting existing machines to the special necessities of golf course irrigation installation, to get the job done better, faster and with less labor.

"About 20 years ago I developed a small ditch digger powered by a Wisconsin engine that was especially adapted to irrigation work," he tells. "It was suggested that I get patents and manufacture the thing, but I was too busy digging ditches with it, and probably blew the biggest chance I ever had." At least five or six companies are now making out nicely manufacturing machines similar to the one Ken developed.

As the years went by, Ken continued developing equipment to help him install irrigation systems better. One of the biggest labor-savers has been the "pipe-puller." This machine was developed by Ken at a cost of \$65,000 more than two years before similar machines were brought onto the market. It allows Formost to lay plastic pipe up to 2½ inches in diameter without digging a trench at all.

The "puller's" blade simply "slices the turf down to the level the pipe is to be laid at, and then, through a special tube behind the slicing blade, the pipe is snaked into the slit continuously. Since the pro-

cess opens up just a narrow slit in the turf, tamping it back into place is a simple matter, and the course is ready to play almost immediately.

This is a matter of pride with the Clouds. In these days of sky-high costs, closing a course down for repairs during playing season could well close it down permanently. "We've never closed a fairway for an installation job," Cloud boasts.

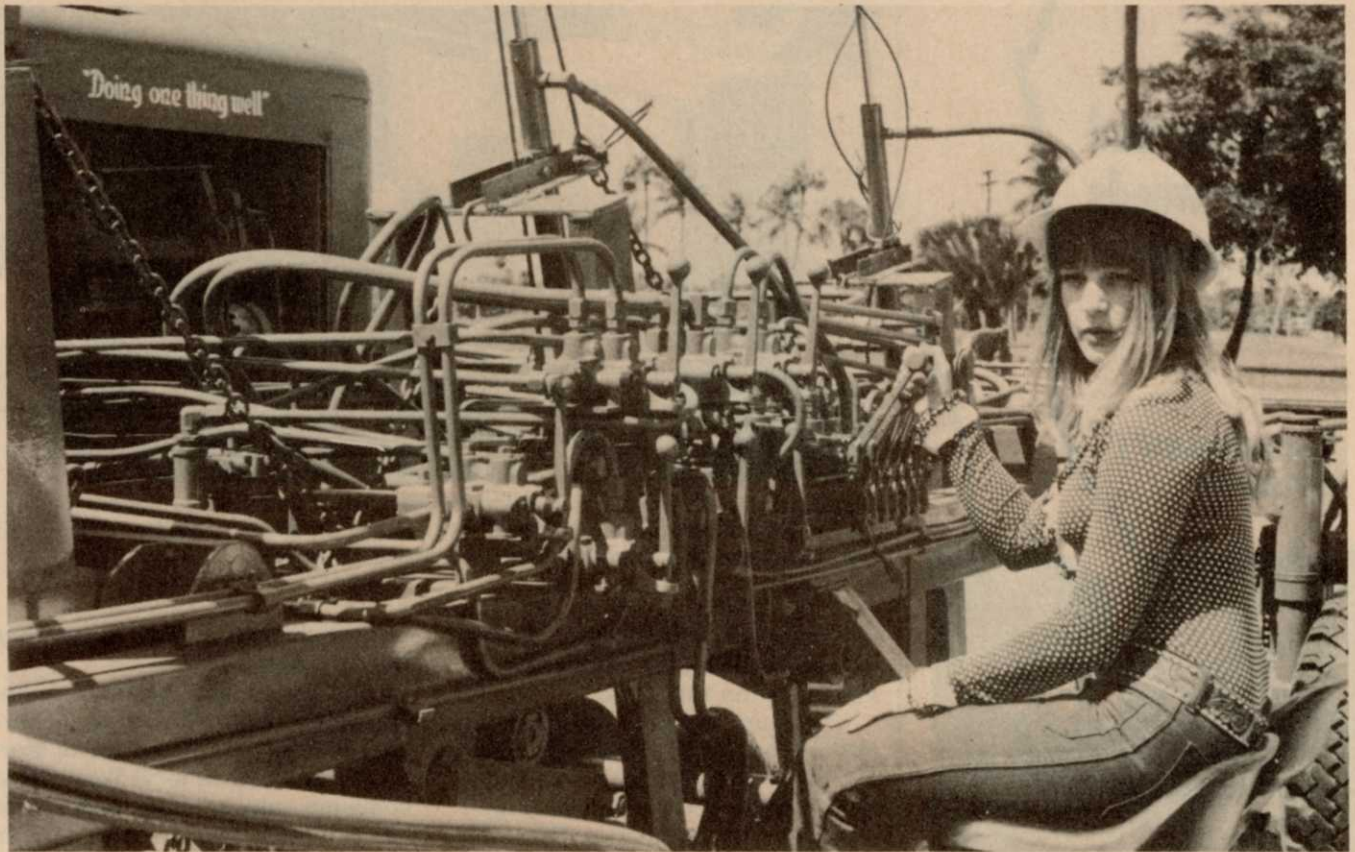
As an example, Cloud cites the Miami Shores Country Club, where the firm's Florida Division completed a job last March. The job had to be done during the height of the club's season, and superintendent, Dave Buxbaum, said "I wanted that course continuously playable!"

"They didn't lose a single round of golf during that irrigation installation," grins Ken's brother Cecil Cloud, Formost's Florida Division manager, who oversaw the Miami Shores job.

Where hard-rock coral just beneath the surface prevented the use of the pipe "puller" for the main lines and some laterals at Miami Shores, Cecil had the crew dig a trench with the other end of the same machine, a powerful continuous ditcher. Then, once the pipe was laid in place, another Ken Cloud invention moved in to backfill and compact the trench. Called the "Spider" by those who work with it, the 11 foot wide mechanical monster was completely designed by Ken and built to his specifications.

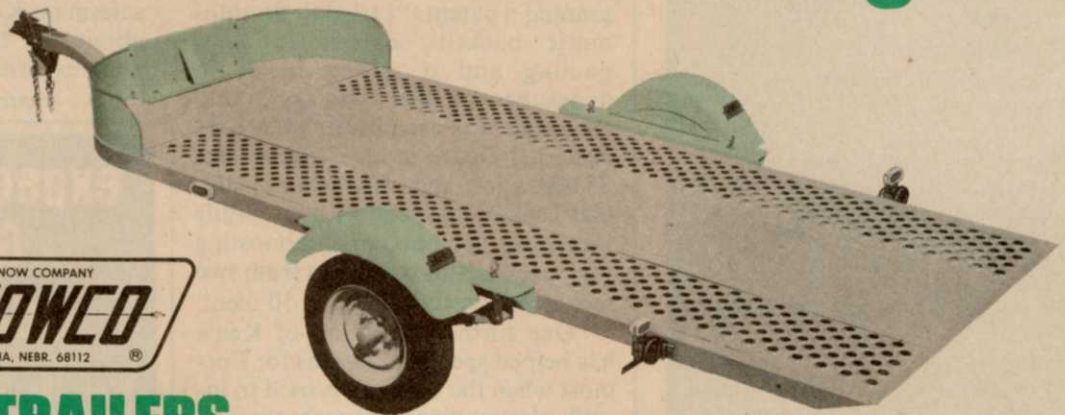
The "Spider" is powered by a standard 6-cylinder industrial engine, which drives the various moving parts through a series of hydraulic pumps and motors. The machine has three sets of augers that completely backfill the earth into the trench as the machine passes over it, each one followed by a hydraulic "tamp" that packs the dirt in 12 inch lifts solidly over the pipe.





"Doing one thing well" is Formost's slogan, here decorating the "Spider," a combination backfiller-compactor invented by Ken Cloud. Also decorating the machine is Mrs. Bruce Pettingill, wife of the machine's operator, as she demonstrates how one of the 18 hand levers controls the hydraulic pumps and motors connected by a maze of tubing.

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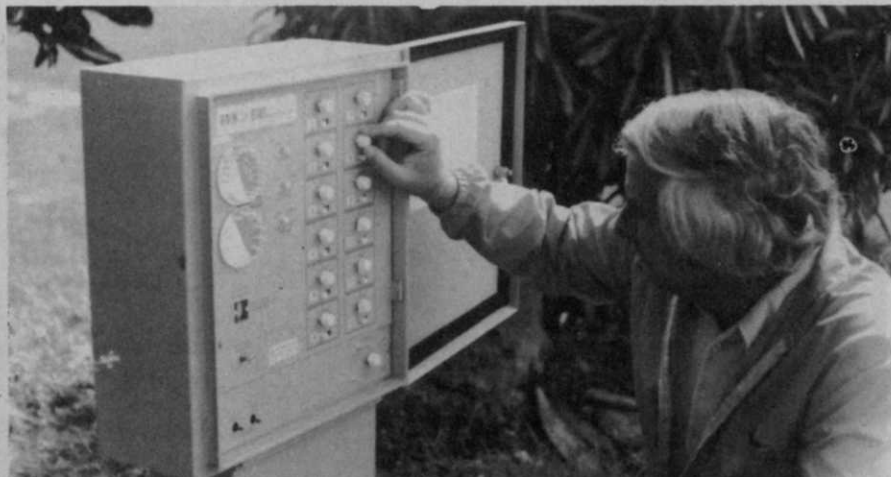


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Manual control of sprinklers on Miami Shores green is effected by course superintendent Dave Buxbaum via controller overlooking the green. Visibility of the green from the controller prevents accidental dousing of golfers.

One man can operate the 18 controls while riding the "Spider" on its high-flotation turf tires.

The huge machine replaces four men on the job, and does even a better job of compacting, virtually eliminating the bothersome settling of trenches after installation. It's fully controllable so that even if you're backfilling a curved trench it can do a perfect job and the augers can be controlled so as not to scalp the turf on uneven terrain, yet pick up almost every grain of dirt and backfill it into the trench.

Ken is especially proud of his invention, for which he has been granted a patent. "I tried to tie automatic backfill, automatic compacting and a strong belief in hydraulics together," he says, "and the result was even better than I expected. I figure it saves us at least \$5,000 a job and eliminates a \$10,000 backfill machine to boot, while increasing compaction and boosting our speed in this operation from two feet a minute to as high as 50 feet."

One further invention of Ken's has helped speed operations for Formost when the "puller" is used to install plastic pipe. At each turn or corner a hole still must be dug to install an elbow or tee joint. "There might be 1,000 or 1,300 of these holes on any one course," Ken says, "and we needed a neat, clean, fast way to dig them." The job formerly took 15-18 minutes by hand, or 7-8 minutes using a backhoe. Ken's mechanical "hole-puncher" actually "saws" out a wedge of turf and dirt, exposing the area of the joint. Once the joint has been made, the wedge is replaced in one piece over it, pre-

serving the turf as well as speeding the operation.

But speed and neatness of installation aren't the only factors contributing to the growth of Formost from a small local West Coast company into a major nationwide concern with two or three jobs in progress at any one time. The firm now operates separate Wisconsin and Florida divisions, and operations in Mexico City and Tokyo are planned for the near future.

Salesmanship has been very important. "I guess you'd have to say our sales story involves three basic factors," says Formost's foremost salesman: Ken Cloud. "First, we tell about the family firm, its history and experience in installing irri-

*(continued on page 35)*

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**FORMOST** (from page 32)

gation systems. Next, we talk about the courses we've done, all the way from the famed Pebble Beach (Bing Crosby Pro-Am) and El Dorado (Bob Hope Classic) courses in California, through Howard Hughes' Desert Inn course in Las Vegas and even the pitch-putt course at the San Clemente White House.

"The third facet of our success story would probably have to be the equipment we install. Since we stand behind the entire installation, including the pipe, sprinklers, timers, and other equipment, we have to be sure of what we're installing, as well as how we do it.

Although the golf course superintendent, in the case of existing courses, of the architect, on new courses, often recommends manufacturers, Formost installs Rain Bird sprinkler equipment on most installations.

"It's simply that the Rain Bird people stand behind their equipment with 48-hour service, and that makes our job a lot easier," Ken says. "It's the kind of service that allows us to give 18 and 24-month guarantees on our installations, instead of the usual 12 months the other contractors give.

At the Miami Shores Country Club, the 13 Rain Bird Controllers Formost installed are used so that each unit controls four greens or two fairways. Location was important — each unit is placed so that the operator can see the entire area controlled by that unit. "That way we avoid wetting down golfers who might happen to be on that green or fairway where we're watering for some special reason," Buxbaum says.

Greens and tees are watered by No. 51 rotor pop-up full-circle and

No. 47 part-circle rotor pop-up sprinklers, while fairways are hand-drenched by more than 400 No. 81-B rotor pop-up heads. The entire system is connected by a network of 66,000 feet of PVC mains and laterals. Three 40-hp, 350-gpm, Tait turbine pumps charge the system with 125 psi pressure. Rain Bird Specialty Valves are used at the pumpshouse to take the shock out of the pressure system and to assure constant flow at varying pressures for the main and lateral lines. More than 400,000 feet of wire tie together the Rain Bird RC-18 and RC-23 controllers on fairways and SC-12 Satellites controlling the greens.

An all-electric irrigation system, the Miami Shores job is installed for maximum lightning resistance. "Until recently, everyone was worried about lightning damage to electric controllers," Cecil Cloud says, "and hydraulic controllers were often chosen instead of the simpler, easier-to-maintain, more accurate electric units."

"Past failures of electric systems in lightning-prone areas like Florida," Ken adds, "have been due to poor installation rather than the equipment itself. Proof of this is our zero-failure track record on electric systems." "I've installed three courses recently with electric controllers and lightning protection," Cecil chimes in, "and even with lightning strikes within 100 feet of a controller, we've yet to lose one."

The new system by Formost and Rain Bird replaces a semi-automatic setup of quick-couplers down the center of each fairway, and pop-up heads on the greens, all controlled by a single valve. "We had no actual control," Buxbaum says. "We turned that valve and all the

sprinklers let go at the same time. Now we can eliminate the equivalent of a man and a half of labor for watering every day, and the system doesn't take a day off, need a vacation or get sick. And best of all, we now have total control of watering that gets right to the edges of every green and fairway."

"We looked a long time before we chose Formost to do this job, and Rain Bird to be the equipment they put in," Buxbaum says. "It took over two years to make a decision. After looking at all the different systems we could find, we decided installation of the very best by the very best would cost no more in the long run. In that case, Formost and Rain Bird was the only choice we could make."



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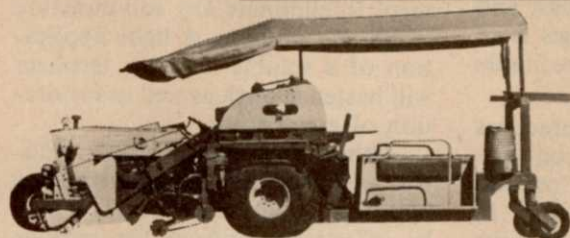
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