“Continuous Motion”
Electric Center Pivot

Conventional center pivot irrigation systems never move smoothly through the field - the towers are always starting and stopping which creates a lot of stress on motors, gearboxes, and the towers themselves. It also causes uneven water distribution. A new “continuous motion” electric center pivot eliminates those problems by keeping all pivot towers moving together at a smooth, constant rate of travel. Once the system starts it continues to rotate without stopping until the circle is completed.

“It extends the life of motors and gearboxes and allows for precise water and chemical distribution,” says Jim Martin, Powerhorse Corporation, Beachwood, Ohio. The company purchased the assets of Lockwood Corporation last year.

The system, called the Navigator, is being offered on new Powerhorse Lockwood electric pivots and can also be retrofitted to existing Lockwood electric pivots. Eventually the company plans to offer retrofit kits for other pivot brands.

The system uses standard electric motors and gearboxes. What’s different is that each tower is outfitted with a solid state control panel that’s linked to a microprocessor-based control panel at the main tower. Each tower “communicates” its position to the control panel. In turn, the control panel guides each motor, speeding it up or slowing it down as needed. As a result the towers stay perfectly aligned at all times.

“The end tower controls the speed and the other towers try to stay perfectly in line with it,” says Martin. “It saves a lot of wear and tear because each motor and gearbox on a conventional irrigation system starts and stops over 2,500 times per revolution. When you add up the number of revolutions a typical center pivot makes per year it’s no wonder that irrigators constantly have to replace motors and gearboxes. Our system will significantly reduce the need to replace motors and gearboxes.”

“Another advantage of the continuous motion is that the tower wheels aren’t as likely to get stuck because they’re always moving and don’t sink into mud as easily. If for some reason one tower falls too far behind, the control panel shuts down the system. You can then take a handheld control unit to the tower that’s stuck and use it to rock the tower free.”

The system adds about $5,000 to $6,000 to the cost of a new center pivot.

Contact: FARM SHOW Followup, Powerhorse Corp., 23950 Commerce Park Rd., Beachwood, Ohio 44122 (ph 800 582-6156 or 216 595-1090).

REDUCE WHEEL RUT DEPTHS BY UP TO 80%
Center Pivot Tracks

You can reduce center pivot wheel rut depths by up to 80% - and also keep your pivot from getting stuck - by mounting new steel tracks over the tires, says Nebraska Irrigation, Inc., Columbus, Neb.

The company’s “Agri-Trac” system was introduced at the recent Husker Harvest Days show near Grand Island, Neb. The 15-in. wide tracks are built in six sections connected together by pairs of brass bushings. The tracks are designed for 11.00 by 24.5 tires. They’re 4 in. wider than the tires. The extra width reduces compaction and therefore wheel rut depth, says the company.

As the tire goes around it smoothly rolls into the next section in front of it, causing that section to flop forward and flat on the ground. The tire then drives over it. The bottom side of the tire meshes with treads built into each section to provide the driving power.

“The system provides 430 sq. in. of ground contact per tower instead of the 88 sq. in. with standard 11.2 by 24.5 tires. Ground pressure may be cut to as little as 3.9 psi,” says sales representative Jeff Bennehausen. “Most farmers start out by putting a set of tracks on a particularly troublesome tower that gets stuck easily or leaves deep ruts. Once they see how well they work they often add tracks to other towers. In some alfalfa fields the tracks just flatten the crop without destroying it. Also, the wheel ruts are shallow enough that you can drive a swather across them.

“Our track system works better than using expensive high flotation tires or large diameter tires which can tear up gearboxes.

“Another benefit is that the tracks can cut ground pressure to as little as 3.9 psi.”

Tracks can cut ground pressure to as little as 3.9 psi.

The tracks roll smoothly along with the original tires without increasing the load on gearboxes. Another benefit is that they protect tires from sharp rocks and the decaying effect of sunlight.

“To install the tracks you lay them out on the ground and drive the tire onto it, then bolt the end sections together. Side lips keep the sections in line with the tire. Mud and foreign material that gets inside the tracks gets washed out by water from the pivot sprinklers through holes where the sections hinge together.”

Sells for $1,200 per tower.

Contact: FARM SHOW Followup, Nebraska Irrigation, Inc., Box 1023, Highway 30 East, Columbus, Neb. 68602 (ph 800 397-1100).

M.D. Products’ kit consists of a set of two-way adjustable brackets ready to bolt or weld to the running gear of your choice. Length and width is determined by the size and shape of the header. Contact: FARM SHOW Followup, RC Sales, W 1008 E. Iowa Road, Hartford, Wis. 53027 (ph 414 673-5229).

REDUCE WHEEL RUT DEPTHS BY UP TO 80%

“Cover-All” open-ended structure keeps calves dry in all weather, cooler in summer.

Calf Hutch Shelter

A Wisconsin manufacturer says his new Calf Hutch “Cover-All” provides a low-cost shelter that can be used with existing hutches. The “Cover-All” is a 12-ft. wide, 11-ft. long, 9-ft. 4-in. high open-ended structure designed to be used between two rows of hutches. Each unit serves four hutches. You line two hutches up on each side and place them against openings along the side. The polyethylene roof has a silver color to reflect sunlight. Tethered calves can get exercise under the cover but are kept separate by divider panels that attach to the sides. The panels reduce the transmission of disease and can be quickly removed for cleaning out manure.

“It keeps calves dry in all kinds of weather and lowers the temperature about 14 degrees in hot weather,” says Ralph Baetz, RC Sales, Hartford, Wis. “Calf hutches are one of the best things that ever happened to calves, but until now operator comfort has been largely forgotten. This cover makes it a lot more pleasant to work with calves.

“Removing manure is easy with the Cover-All. You just pull one pin to remove each panel and then use a skid steer loader. There’s about 7 ft. of vertical clearance on each side so clearance isn’t a problem. You can also pull the hutches back so that you can clean manure outside the structure.

“It’s designed to be used as a permanent structure although you can move it if you want. Eight steel stakes are used to anchor it to the ground. Multiple units can be placed end to end and tied together so that you can expand as needed. Any type of hatch can be used including wooden ones. The roof has a 9-in. overhang over the hutches to keep calves completely dry.

“Each unit comes complete with two divider panels. However, there’s room for six panels so if you’re concerned about wind you can put extra panels on each side.

A single 4-stall unit sells for $1,275. A single 2-stall unit sells for $1,257. Contact: FARM SHOW Followup, RC Sales, W 1008 E. Iowa Road, Hartford, Wis. 53027 (ph 414 673-5229).

“Continuous Motion”
Electric Center Pivot

You can reduce center pivot wheel rut depths by up to 80% - and also keep your pivot from getting stuck - by mounting new steel tracks over the tires, says Nebraska Irrigation, Inc., Columbus, Neb.

The company’s “Agri-Trac” system was introduced at the recent Husker Harvest Days show near Grand Island, Neb. The 15-in. wide tracks are built in six sections connected together by pairs of brass bushings. The tracks are designed for 11.00 by 24.5 tires. They’re 4 in. wider than the tires. The extra width reduces compaction and therefore wheel rut depth, says the company.

As the tire goes around it smoothly rolls into the next section in front of it, causing that section to flop forward and flat on the ground. The tire then drives over it. The bottom side of the tire meshes with treads built into each section to provide the driving power.

“The system provides 430 sq. in. of ground contact per tower instead of the 88 sq. in. with standard 11.2 by 24.5 tires. Ground pressure may be cut to as little as 3.9 psi,” says sales representative Jeff Bennehausen. “Most farmers start out by putting a set of tracks on a particularly troublesome tower that gets stuck easily or leaves deep ruts. Once they see how well they work they often add tracks to other towers. In some alfalfa fields the tracks just flatten the crop without destroying it. Also, the wheel ruts are shallow enough that you can drive a swather across them.

“Our track system works better than using expensive high flotation tires or large diameter tires which can tear up gearboxes.

“Another benefit is that the tracks can cut ground pressure to as little as 3.9 psi.”

Tracks can cut ground pressure to as little as 3.9 psi.

The tracks roll smoothly along with the original tires without increasing the load on gearboxes. Another benefit is that they protect tires from sharp rocks and the decaying effect of sunlight.

“To install the tracks you lay them out on the ground and drive the tire onto it, then bolt the end sections together. Side lips keep the sections in line with the tire. Mud and foreign material that gets inside the tracks gets washed out by water from the pivot sprinklers through holes where the sections hinge together.”

Sells for $1,200 per tower.

Contact: FARM SHOW Followup, Nebraska Irrigation, Inc., Box 1023, Highway 30 East, Columbus, Neb. 68602 (ph 800 397-1100).

M.D. Products’ kit consists of a set of two-way adjustable brackets ready to bolt or weld to the running gear of your choice. Length and width is determined by the size and shape of the header. Contact: FARM SHOW Followup, RC Sales, W 1008 E. Iowa Road, Hartford, Wis. 53027 (ph 414 673-5229).

REDUCE WHEEL RUT DEPTHS BY UP TO 80%

“Cover-All” open-ended structure keeps calves dry in all weather, cooler in summer.