

big tank at each end

CHS member cooperative adds more than 1.3 million bushels of steel storage and a new automation system in Colorado.

With 2 million bushels of storage, the CHS rail terminal in Yuma, CO (970-848-5432), had plenty of storage space – but not quite enough. “We wanted to take advantage of



From left: John Ptacnik, general manager; Jason Rahm, Yuma location manager; Corby Kneedler, operations manager. Ground-level photos by Ed Zdrojewski.



Yuma ★

COLORADO

CHS INC.

**Inver Grove Heights, MN
651-355-6000**

Founded: 1931

Annual volume: 2 billion bushels+

Annual revenues: \$32 billion

Number of members: 900 cooperatives, 75,000 producers

Number of employees: 11,000

Crops handled: Corn, soybeans, wheat, rice, canola, sunflowers

Services: Grain handling and merchandising, energy, agronomy, risk management, trucking, grain and oilseed processing, flour milling

Key personnel at Yuma:

- John Ptacnik, general manager
- Corby Kneedler, operations manager
- Jason Rahm, location manager
- Dan Denbo, lead operator
- Kristine Bruggeman, scale operator



New 675,000-bushel Sukup tanks and yellow AGI Tramco 25,000-bph fill conveyors at far right and far left of the CHS facility at Yuma, CO. Aerial drone photo courtesy of CHS.

YUMA SUPPLIER LIST

- **Aeration fans** • Sukup Mfg. Co.
- **Bearing sensors** • AGI SURETRACK CMC
- **Bin sweeps** • Sukup Mfg. Co.
- **Catwalk** • AGI
- **Contractor** • Quality Storage Solutions LLC
- **Control system** • Kasa Controls & Automation
- **Conveyors (belt)** • AGI Hi Roller
- **Conveyor belting** • Fenner Dunlop
- **Conveyors (drag)** • AGI Tramco Inc.
- **Engineering (structural)** • VAA, LLC
- **Design and construction management** • CHS Construction Division
- **Grain temp system** • Rolfes@Boone
- **Insurance** • CHS Inc.
- **Level indicator** • BinMaster Level Controls
- **Millwright** • M&M Industrial Construction LLC
- **Motion sensors** • AGI SURETRACK CMC
- **Motors** • WEG
- **Speed reducers** • Dodge
- **Steel storage** • Sukup Mfg. Co.
- **Steel tank erector** • Global Bin Builders
- **Tower support system** • AGI

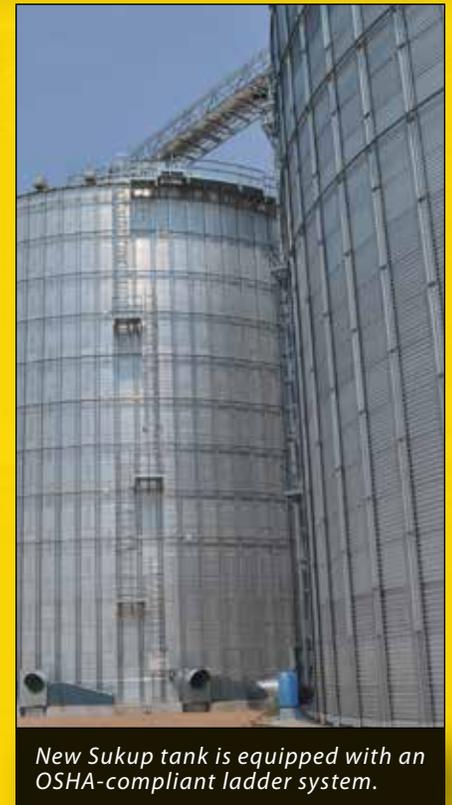
the markets,” says General Manager John Ptacnik, who came to the Yuma location in 2000, back when it was M&M Cooperative. (M&M became a member of CHS in 2007.)

“We would fill the bins with wheat, ship it out by train, and then fill them with fall crops,” he says. “In keeping with what the market tells us, we were shipping grain at the wrong time. We were piling too much on the ground the past few years.”

CHS/M&M Cooperative achieved those goals with a pair of 675,000-bushel Sukup Mfg. Co. corrugated steel tanks, one at each end of a long line of tanks oriented north and south.

In addition, the facility needed an upgrade to its control systems, so it rewired the entire facility with a new control system from Kasa Controls & Automation.

To serve as general contractor on the project, CHS kept it local with Quality



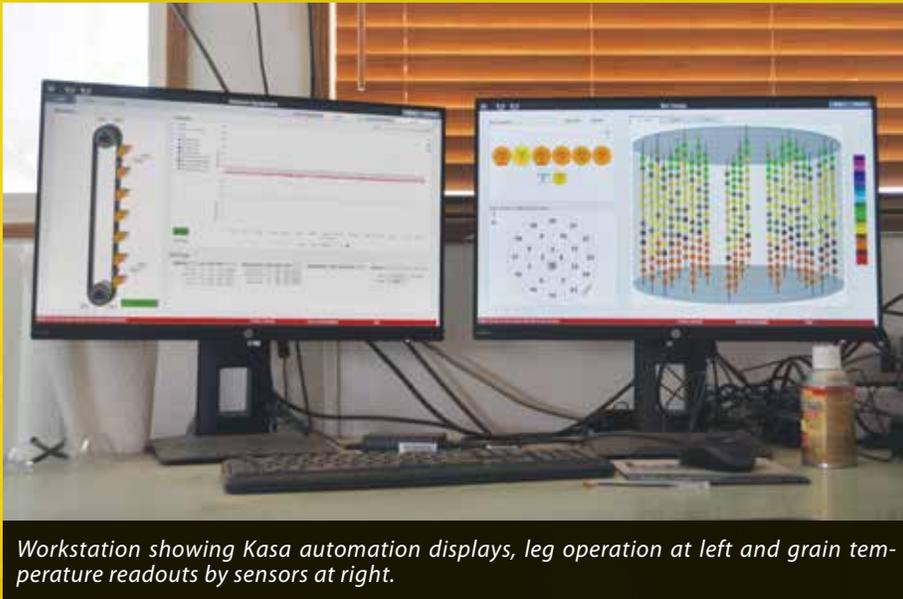
New Sukup tank is equipped with an OSHA-compliant ladder system.

Storage Solutions LLC (970-848-3306).

CHS’ in-house construction division, under the leadership of Jim Gales, designed the project, led contractor procurement efforts, and performed construction management. ▶



Ground-level view of the CHS rail terminal in Yuma, CO, with new 675,000-bushel Sukup tanks at either end.



Workstation showing Kasa automation displays, leg operation at left and grain temperature readouts by sensors at right.

Also on the project, M&M Industrial Construction LLC, Grand Island, NE (308-385-8333), served as millwright; Global Bin Builders, Iowa Falls, IA (320-413-0312), erected the two tanks; and VAA, LLC, Plymouth, MN (763-577-9100), performed engineering work.

Groundbreaking took place in December 2020, and operation began in the summer of 2021. Ptacnik commented that the project faced some weather delays during construction.

Steel Addition

The two new Sukup tanks stand 105 feet in diameter, 84-1/2 feet tall at the eaves, and 113 feet tall at the peaks, holding 675,000 bushels each.

The tanks are outfitted with flat floors, outside stiffeners, 15,000-bph Sukup paddle sweeps, 24-cable Rolfes@ Boone grain temperature monitoring systems, and BinMaster mechanical

level indicators. The north tank also is outfitted with an OSHA-compliant ladder system. Neither tank has a sidedraw.

Each tank is equipped with four Sukup 60-hp centrifugal fans capable of delivering 1/10 cfm per bushel of aeration through in-floor ducting.

Grain reaches the new tanks via AGI Tramco 25,000-bph overhead drag conveyors. The tanks empty onto AGI Hi Roller 25,000-bph enclosed belt conveyors running back to existing legs.

Automation

Terminal operations now are under the control of a Kasa automation system. Ptacnik says the facility did have automation prior to 2021, but the new system offers a number of new features at Yuma:

- A preventive maintenance package, including scheduling for housekeeping work.



AGI support tower holding up AGI Tramco drag conveyor.

- The capability of operating the terminal from remote locations.

- Increased hazard monitoring equipment, including AGI SURETRACK CMC bearing sensors, motion sensors, and rub blocks.

- More efficient train loading as the system allows for simultaneous operation of all gates from storage to the rail loadout.

“So far, everything has worked like a dream,” Ptacnik says.

Ed Zdrojewski, editor