

# gear

TECHNOLOGY®

SEP/OCT  
2014

## SOFTWARE SURVEY: 20 QUESTIONS



COMPUTER AIDED  
MANUFACTURING  
WHO'S AFRAID OF  
INNOVATION?



### TECHNICAL

**ASK THE EXPERT:  
TRIBOLOGICAL NOMENCLATURE**

**REDUCING GAS USE IN U.S. WITH  
HIGH-TECH BEVEL GEARS**

**MICROPITTING OF LARGE  
GEARBOXES VIA GEOMETRY,  
OPERATING CONDITIONS**

**SIMULATION OF DEVIATIONS IN  
HOBBING, GENERATION GRINDING**

### ADDENDUM

**FROM BAUHAUS to  
GEARBOX?**

# On the Move with Circle Gear

PERSONNEL CHANGES AND EXPANSION HIGHLIGHT CICERO, ILLINOIS GEAR MANUFACTURER

**Michael McKernin** was recently appointed president of Circle Gear and Machine Company in Cicero, Illinois. He follows in the footsteps of Albert Knez Sr. the company's current CEO and former president of over 30 years. McKernin has held various positions within the company across engineering and sales disciplines during his 25+ years.



McKernin's efforts have been recognized by Charlotte Knez Schmidt and Albert Knez Jr, third generation members of the founding family and current company executives. "Mike has certainly been busy in his new position. Since his appointment, we have relocated our Quality Reducer Division, re-tooled our manufacturing capability and purchased the building directly adjacent to the main works, increasing our total manufacturing space to over 121,000 square feet" said Mrs. Schmidt.

"Acquiring the 77,000 square foot building located next door to Circle Gear earlier this year, allowed us to better utilize manufacturing and engineering resources, while improving overall service to our customer base. Quality Reducer Service (QRS) formerly of LaGrange, Illinois, moved to the Cicero location in March of 2014. QRS and Circle Gear will now be together under one roof," said McKernin.

QRS specializes in the inspection, overhaul and rebuilding of industrial gearboxes. They have long been supported by the manufacturing and engineering expertise of Circle Gear. In addition to QRS, the expanded facility will house two recent machine purchases, a Gleason Model 463 with aircraft quality hypoid/spiral bevel gear tooth capabilities and the Luren LFG-8040 vertical profile gear grinder.

"Much of our sustained growth over the past two years has been in spiral bevel/hypoid product line," McKernin added. "Bevel gear tooth grinding is a logical extension of that product line."

"The addition of **Paul Campion** as general manager of operations opened the door to significant growth in our bevel department. Paul's reputation and expertise are well known in the gear industry. His leadership and 30+ years of experience have been catalysts for growth not only in bevels but across the full range of our product offering," stated McKernin.

McKernin also noted that the versatility, increased production and consistent quality achieved from the new Luren Tooth Grinder



were cause to obsolete other machines. "The timing couldn't have been better," McKernin said, "given our recent growth, this machine has allowed Circle Gear to remap our manufacturing footprint and reclaim much needed floor space, while helping to expand throughput in our plant."

A key component for McKernin is to make these changes as seamless as possible for their customers. "The cornerstone of our business model has always included shortened lead-times and breakdown service. The productivity gains and improved workflow from our increased machine capacity and floor space have allowed us to keep customers happy and coming back for more," McKernin said.

Circle Gear, a family owned and operated company since 1951, is an ISO 9001:2008 registered company and a proud member of AGMA ([www.circlegear.com](http://www.circlegear.com)).

## Matthew Cane

RECEIVES AGMA FOUNDATION SCHOLARSHIP

Born and raised in the Chicago area, **Matthew Cane** made the decision to return to school after some trying times during the recession. "I graduated with honors from McHenry County College with my Associates degree in Applied Science – Manufacturing Management, and several certificates including Manufacturing Design Technology," Cane said.



He's currently attending Southern Illinois University (SIU) on the weekends to obtain his Bachelor's degree in Industrial Technology, and working full time as a quality coordinator and tool design engineer at Star SU, LLC.

Cane said a healthy dose of curiosity regarding how things work and how they're made helped him become interested in manufacturing and engineering. "I can't tell you how many broken appliances I took apart as a kid just to see how they worked, but I can tell you I'm a lot better at putting them back together—and there are a lot less parts left over."

Before going to school, Cane took some online certification courses through AGMA. He read in a newsletter about the AGMA Foundation Scholarship and applied once he transferred to SIU. Recipients of the 2014 AGMA Foundation Scholarship included Cane, Ryan Hall and Tyler O'Brien.

"The scholarship is helping to bring advanced education within reach. Everything I've learned, I've been able to directly apply to what I do on a daily basis. While I've had a fairly broad range of experiences within Star SU, my academic pursuits have given me broad experiences in manufacturing. For example, I've been able to go on tours to local heat treat facilities and get to know their process beyond what I would be exposed to in my day to day professional capacity," Cane said.

Cane has been able to draw on all these experiences to further his career in manufacturing. "I've had exposure to so much of the value chain having worked my way up, whether it's ship-