

News from:

N.A. Woodworth

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Product Information — For Immediate Release

SPECIALTY GEAR CHUCKS SHIFT TO QUICK CHANGE

N.A. Woodworth (Troy, MI) has introduced the latest series of specialized chucks for gear production...the advanced 'Quick-Pitch' Diaphragm PLD (Pitch Line Diaphragm) Chucks featuring quick change, precision top jaw tooling sets. These innovative chucks, utilizing N.A. Woodworth's long standing radius diaphragm chuck technology, are ideal for gear manufacturing, grinding and hard-part processing where low to medium volume runs are the norm. They provide fast, 60-second changeouts whenever frequent part-to-part changeovers are required.

The system incorporates the use of fixed-length, interchangeable wedge pins that locate and lock on the gear's pitch diameter, work with pieces having virtually any number of teeth and can compensate for varying teeth spacing and pitch values. The Quick-Pitch PLD models can be used on applications with sun, ring, pinion and output gears with spur and helical gear tooth forms.

N.A. Woodworth has available four Quick-Pitch chuck units, featuring three 3-jaw versions with pitch diameter capacities of $\varnothing 25 - \varnothing 100\text{mm}$, $\varnothing 100 - \varnothing 170\text{mm}$, $\varnothing 170 - \varnothing 245\text{mm}$, plus a 6-jaw unit having $\varnothing 245 - \varnothing 350\text{mm}$ gear pitch diameter range. The chucks' operating features include pull back action to fixed stops that helps maintain accurate and repeatable workpiece position along with centrifugal force compensation that eliminates the effects of running at today's higher machining speeds. The Quick-Pitch chucks also

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incorporate weight-saving engineering concepts that help minimize wear and tear on machine tool and grinding system spindles and bearings.

The key to the operation of the Quick-Pitch chuck is its simplistic locating wedge pin design, with each pin set in a jaw that snaps into place to orient and accurately locate each individual pins' positions relative to the master jaw set. Two half-turn clamp screws securely lock and hold the jaw in place, and just as easily the jaws are released, removed, changed over and retightened with no additional adjustments or setup procedures required. The pins are nitrided to provide a hard, long wearing surface area for greater service life.

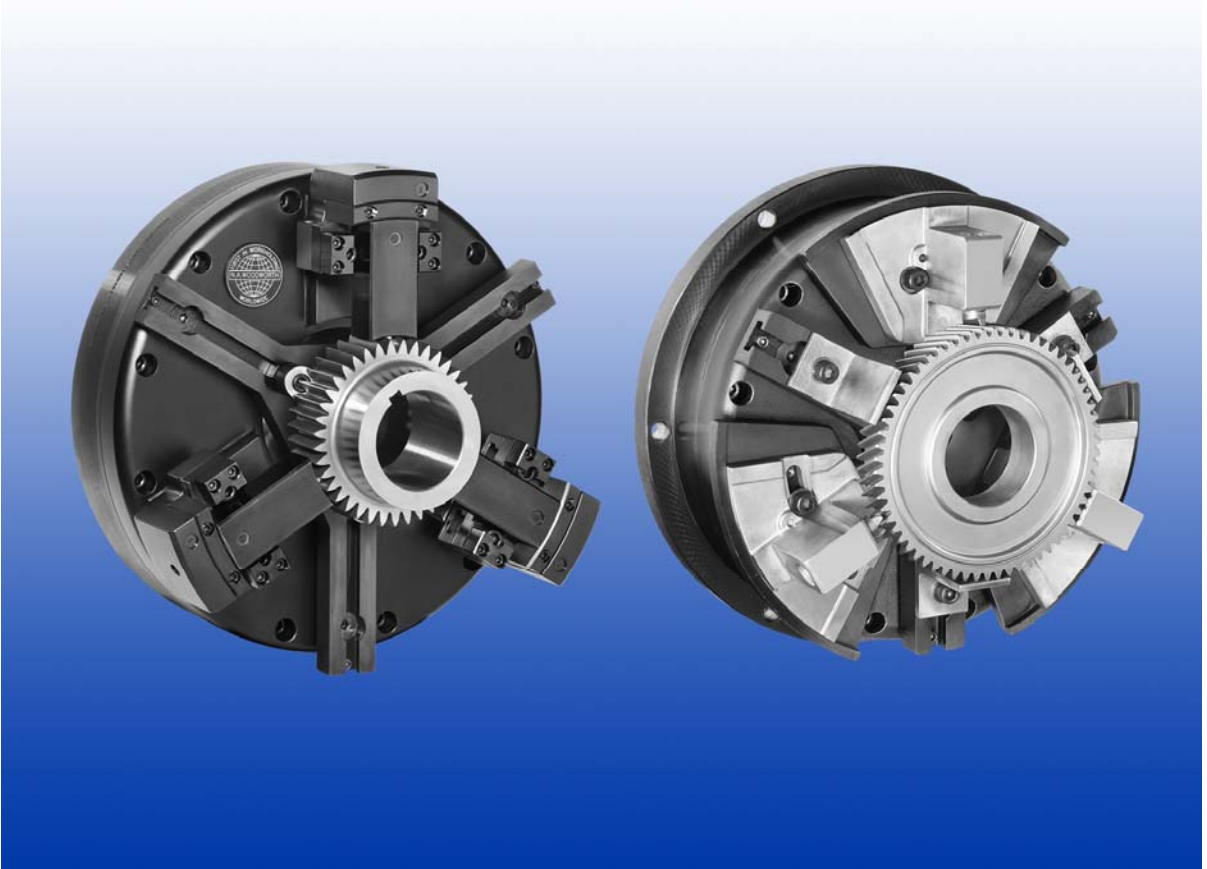
The Quick-Pitch Diaphragm chucks also feature a sealed design to withstand harsh work environments, including grinding sludge and coolants. Further, the diaphragm mechanism means no sliding parts that can become contaminated, all resulting in minimal maintenance requirements. Optional synchronizing pins are available to facilitate auto-load operations.

The Quick-Pitch Diaphragm quick changeover gear chucks complement N.A. Woodworth's other gear workholding systems, including the existing Universal Gear modular gear chucking system that adapts to many different gear configurations, requiring minimal top tooling. The Universal Gear Chucks are ideal for longer run applications with infrequent changes. Additional gear holding systems are available on application.

N.A. Woodworth, an ITW Workholding Company, headquartered in Troy, MI and utilizing the worldwide research and development resources of the ITW group, is one of the world's premier builders of workholding solutions for specialized applications. Since 1939 N.A. Woodworth engineering innovations and workholding solutions—such as the Tru-Change chuck-to-machine precision mounting system—have resolved some of the world's most demanding workholding requirements and have provided productivity, precision and quality output support to a variety of industries the world over.

For additional information regarding N.A. Woodworth and its products, visit www.itworkholding.com

SPECIALTY GEAR CHUCKS



The N.A. Woodworth lineup of specialty workholding products now includes the advanced Quick-Pitch Diaphragm PLD Gear Chucks (left), the series of chucks that provide accurate 60-second changeovers for low to medium volume applications of gears with pitch diameters from $\varnothing 25$ to $\varnothing 350$ mm. On the right, the Universal Gear Chuck for longer run applications.