Optimize Your Machine with the Leader in Motion Control.

Motion is at our core. We consistently maintain the highest standards of quality, innovation and technology. We help you build in exceptional motion performance, reliability and longevity, while considering cost and time-to-market challenges.

Find Your Solution from the Broadest Range in the Industry

Our breadth of products allows for a range of solutions—standard, modified or custom. You can depend on our integrated, optimized components and hit the ground running in any application with ease.

Rely on Our Support and a Global Footprint to Help You Build a Differentiated Machine

With Kollmorgen, you're getting great value and strength. We leverage a team of more than 1,800 employees, and over 60 years of application experience applied to selecting the optimum motion components for your machine. In addition, we have over 1,500 distributor locations around the globe. As always, our field service engineers and support teams are available when and where you need them.

Looking for an Exceptional Motion Control Partner?

If you, too, have a passionate belief that motion matters, you've met your partner. Our range of best-in-class components is unparalleled. Our application expertise and our rapid customization and prototyping capabilities help you build a differentiated machine and get it to market faster.

Kollmorgen Machine Audit and Performance Guarantee

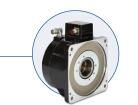
Contact Kollmorgen today to schedule a Machine Audit. After the audit, if we can't improve your machine performance, we'll take equipment back - no questions asked. For the machine audit, Kollmorgen Applications Engineers will come to your site, evaluate the current design and help identify areas to improve system throughput and performance.



Micron[™] Gearhead



AKM[™] Servomotors







Housed Direct Drive Rotary Motors



Direct Drive Linear Motors



Linear Positioners



Multi-Axis Precision Tables

About Kollmorgen

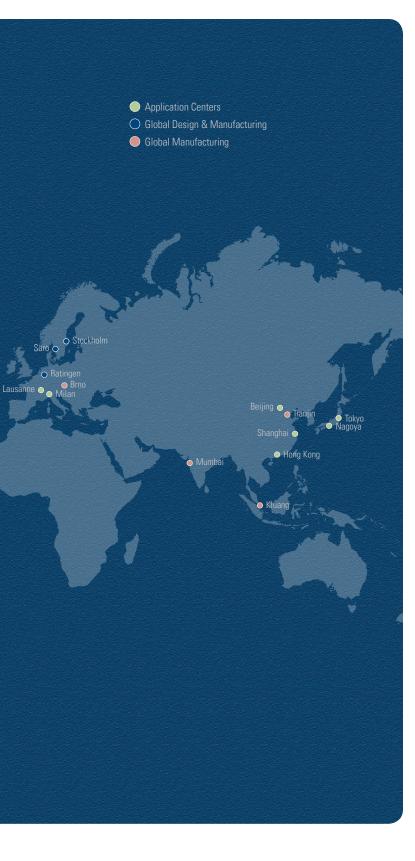
Kollmorgen is a leading provider of motion systems and components for machine builders. Through world-class knowledge in motion, industry-leading quality and deep expertise in linking and integrating standard and custom products, Kollmorgen delivers breakthrough solutions that are unmatched in performance, reliability and ease-of-use, giving machine builders an irrefutable marketplace advantage.

For assistance with your application needs, contact us at: 540-633-3545, support@kollmorgen.com or visit kollmorgen.com for a global contact list.

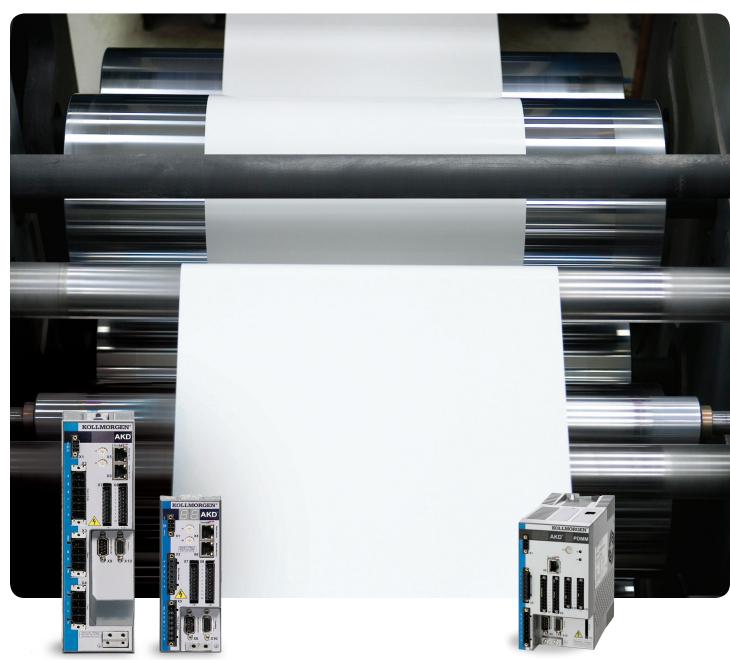


Because Motion Matters™

Kollmorgen 203A West Rock Road Radford, VA 24141 USA Phone: 1-540-633-3545 Fax: 1-540-639-4162



Experience Scalable Programmability with Advanced Kollmorgen Drive[™]



KOLLMORGEN

Because Motion Matters™



Scalable Programmability

Kollmorgen delivers cutting-edge technology and performance with the AKD servo drive and KAS controls platform. Whether your application requires a single axis or over 100 fully synchronized axes, Kolllmorgen's intuitive software and tools scale to meet your needs. From simple analog torque control to the latest high-performance automation network, the AKD servo drive packs power and flexibility for virtually any application into one of the most compact footprints of any digital servo drive in the industry.



Base AKD ("B" Option)

- Controlled by analog torque-and-velocity commands
- Includes electronic gearing via X9 connector
- Includes access to 11 digital I/O and 2 analog I/O on base drive
- Includes 2 high-speed digital inputs
- Expandable to 31 digital I/O and 4 analog I/O

Benefits

- Patented auto-tuning delivers optimized performance in seconds.
- 1.5MHz current loop and 16KHz velocity loops offers greater bandwidth and performance Optimized performance in seconds
- Greater throughput and accuracy
- Easy-to-use Graphical User Interface (GUI) for faster commissioning and troubleshooting
- Flexible and scalable to meet any application

	Stop 0 - Service + 2 - Position Mode + D	able & Clear Faults Save To Drive	Connect Panic
	Velecity 1: 60.000 ppm 0 1	Reversing Continuous	Lann more about this t
Parameter Load/Save		00 rpm/s	
Terminal	Deceleration: 60.0	00 pm/s	
	D Stat		
	Position Feedback: 0.0	00 Count	
	Velocity Feedback: 0.0	00 pm	

Motion Tasking ("P" Option)

- Adds simple point-and-click indexing to base drive
- Provides user with pre-programmed options
- Guides novice user through simplified steps to create indexing moves
- Network connectivity to EtherCAT[®], CANopen[®] Profinet[®], Ethernet/IP[™], TCP/IP, SyngNet[™] and others
- MODBUS port for communication with HMI



BASIC Programmable 1.5 Axis Drive ("T" Option)

- Adds BASIC programmability to base AKD
- 4Khz programmable interrupt service routines
- Conditional statements, built-in math functions, user functions and subroutines
- Includes 2 high-speed digital inputs
- Same package size as base drive
- Expandable to 31 digital I/O and 4 analog I/O
- Optional integrated SD card for easy backup and drive cloning
- Includes electronic camming functionality

Basic Operation



RANGE OF KOLLMORGEN AUTOMATION SUITE CAPABILITIES



VKLHW



ΔΚΠ ΡΠΜΙΛ

Programmable Drive Multi-Axis Master PDMM ("M" Option)

- Scalable solution for use as a single-axis drive with integrated controller and soft-PLC
- Choose from all five IEC 61131-3 languages for soft PLC process programming
- Program motion using your choice of PLCopen for motion or our innovative Pipe Network[™]
- 4KHz PLC scan rate and EtherCAT updates
- Complete line of HMI panels with integrated software to simplify GUI development
- Exclusive function blocks, such as "wait," enable your program to act as a scanning or sequential language
- Onboard I/O includes 17 digital (with 2 high-speed inputs) and 2 analog
- Connects to AKT[™] fieldbus I/O for nearly unlimited expandability



Seamlessly add additional axes and AKD PDMM serves as a high-performance multi-axis machine controller

- SD card for easy backup and system updates
- Integrated webserver for diagnostics and troubleshooting from any computer or mobile device
- Provide true synchronized-path control of up to 16 axes
- Reduce cabinet size and wiring requirements with a single, compact package
- Easily manage remote I/O and the I/O of all attached drives via EtherCAT
- Use PLCopen for motion or Pipe Network[™] to program sophisticated camming and gearing applications in a matter of minutes



Kollmorgen Automation Suite **Programmable Automation Controller (PAC)**

- Build EtherCAT-based systems up to 128 axes of high-performance motion using a PAC controller
- This scalable solution provides a full integrated development environment for any application, whether programming a single axis of motion, a multi-axis AKD PDMM[™] system, or a PACbased system up to 128 axes
- Panel PACs include the choice of a 10", 15" or 17" touchscreen user interface
- PAC controllers include choice of Celeron or Core2Duo processor for scalable performance
- Program camming, gearing and other motion applications using a choice of PLC open for motion or the graphical Pipe Network[™]

Pipe Network[™]-Visual Programming for Motion.

- Accelerate development by programming tasks in hours that would otherwise take weeks
- Improved coding quality through visual programming and by using prebuilt modules that have been thoroughly tested and optimized
- Easy knowledge transfer, replacing pages of complex code with easily understood graphical representations
- Available on PDMM and PAC controllers

Single-Axis Programming

→<u>∽∽</u>)) – ><u>~</u>____ \rightarrow

Pipe Network provides a one-to-one translation of a mechanical system into a logical world as shown in the Vertical Form Fill and Seal machine above. Click and build your motion program in minutes, or contact Kollmorgen for examples of common machine architectures to further accelerate your development.

Multi-Axis Programming