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AUTOMATION SOLUTIONS

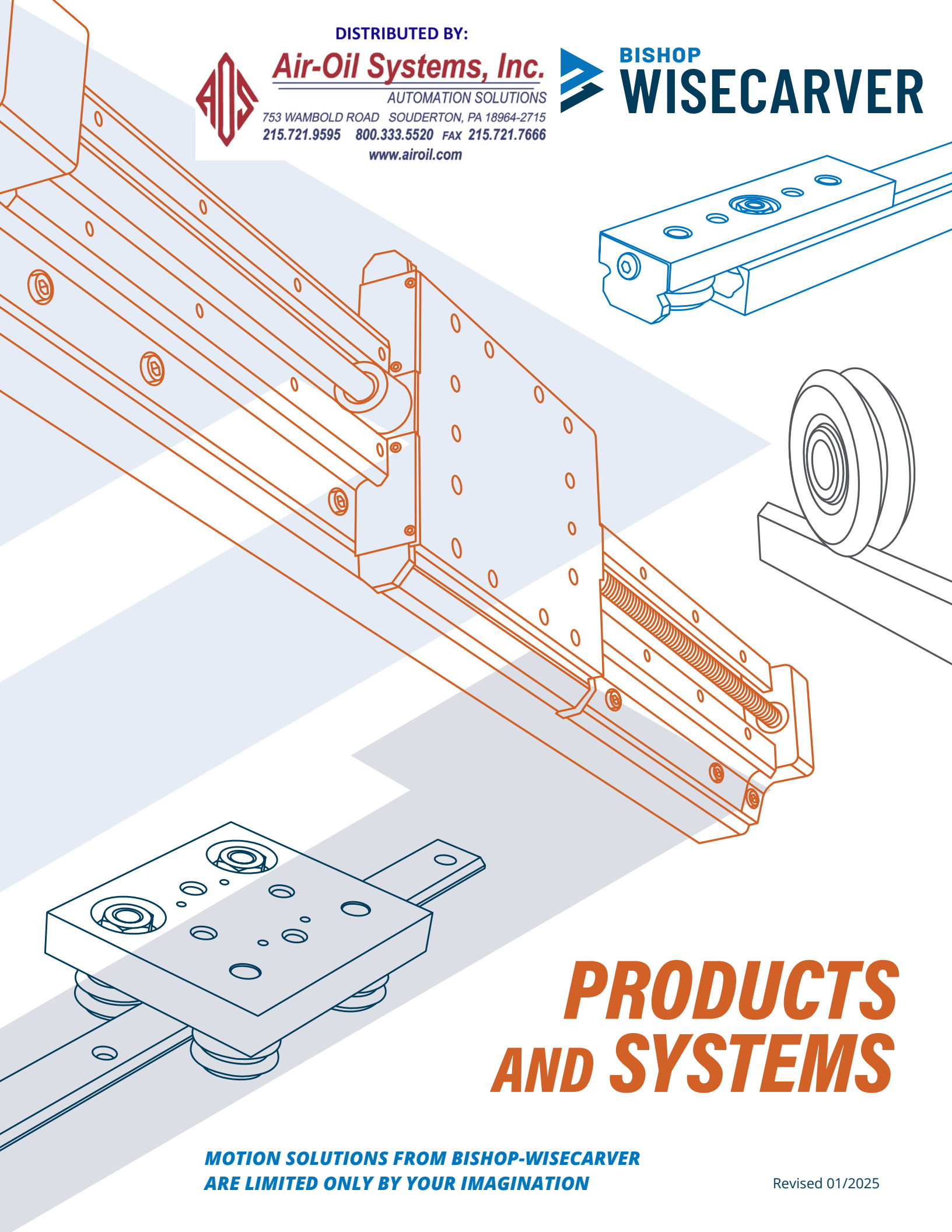
753 WAMBOLD ROAD SOUDERTON, PA 18964-2715
215.721.9595 800.333.5520 FAX 215.721.7666

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BISHOP

WISECARVER



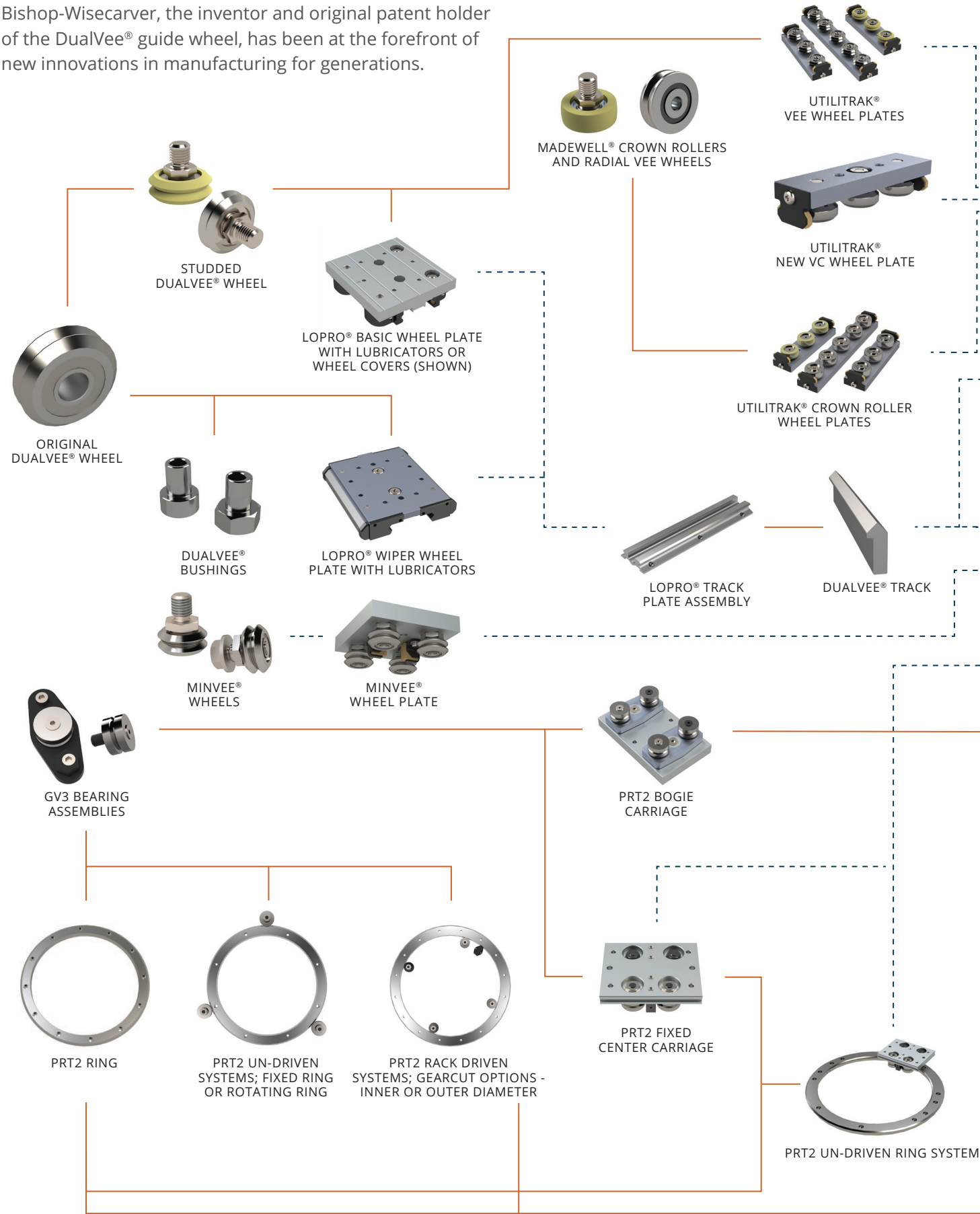
PRODUCTS AND SYSTEMS

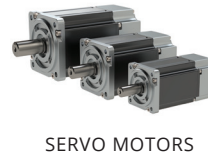
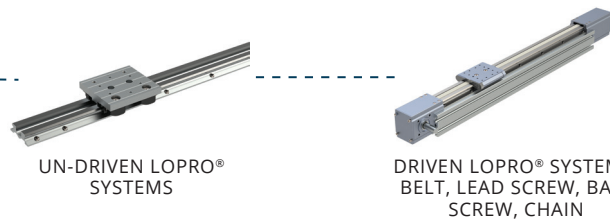
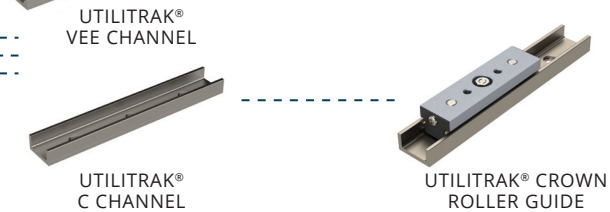
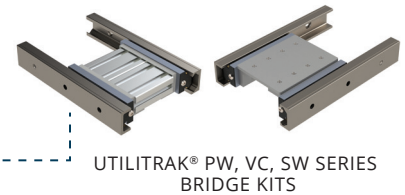
**MOTION SOLUTIONS FROM BISHOP-WISECARVER
ARE LIMITED ONLY BY YOUR IMAGINATION**

Revised 01/2025

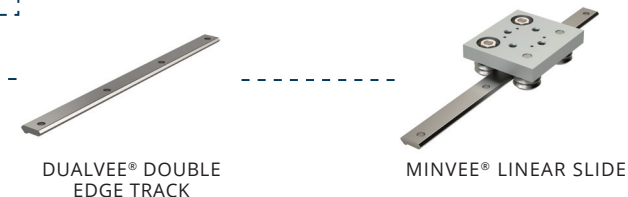
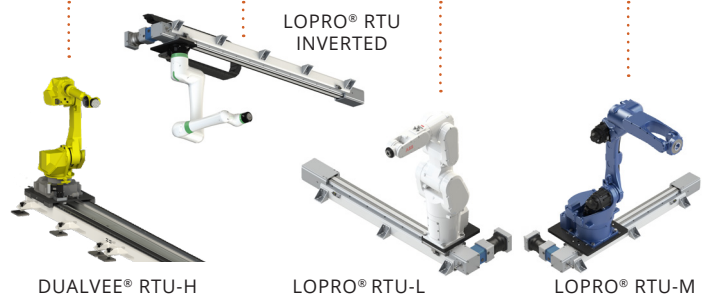
PRODUCT EVOLUTION CHART

Bishop-Wisecarver, the inventor and original patent holder of the DualVee® guide wheel, has been at the forefront of new innovations in manufacturing for generations.

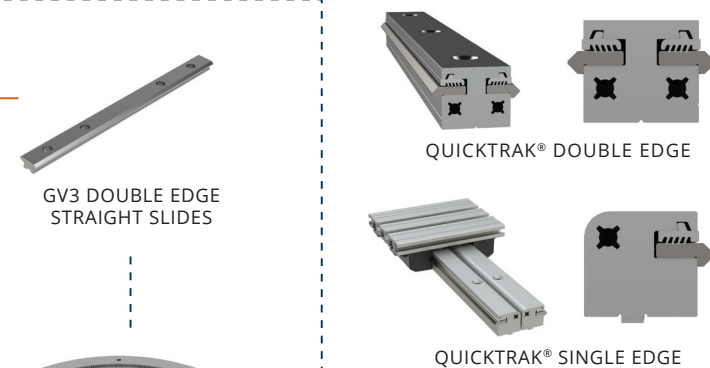
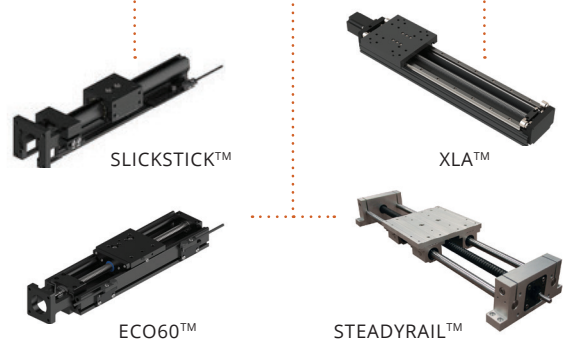




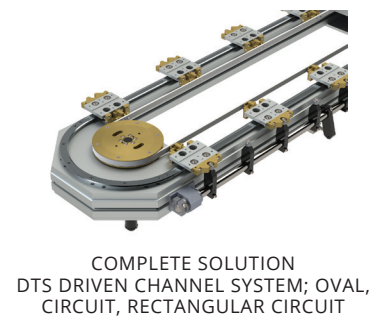
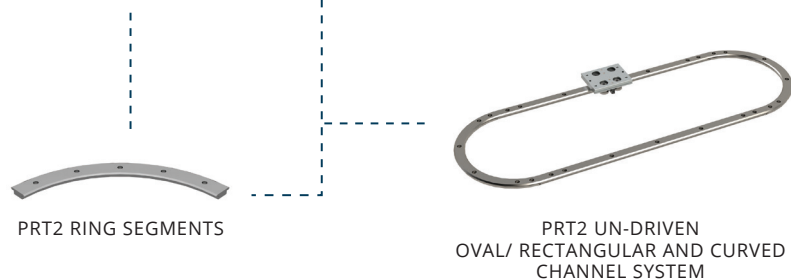
Robot Transfer Units



Signature Motion Linear Actuators®



PRT2 GEARCUT OPTIONS: INNER OR OUTER DIAMETER



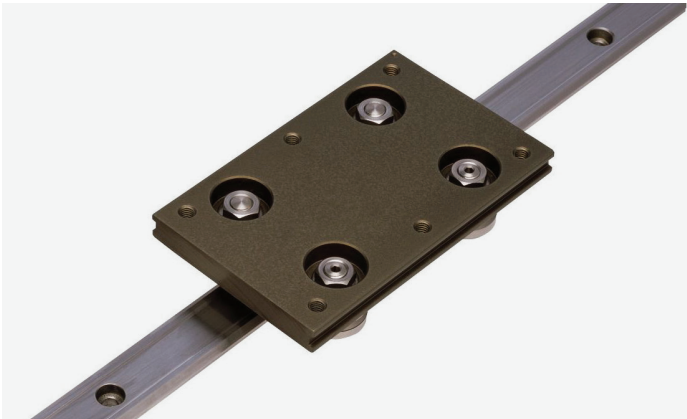
COMPONENTS & ACCESSORIES



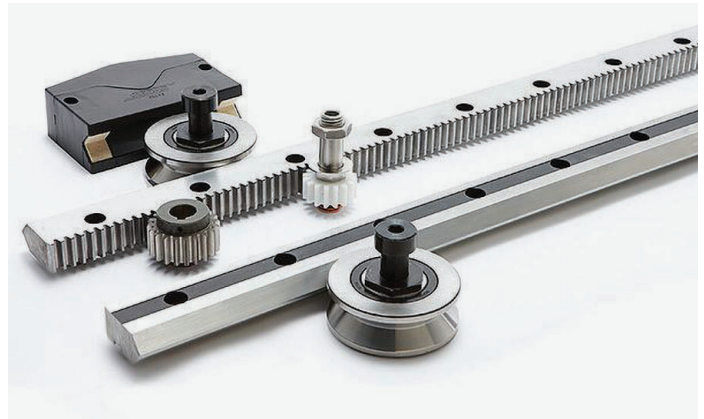
DualVee®: A reliable, smooth anti-friction motion solution, DualVee® is unparalleled for long, fast and extremely contaminated environments. Available in carbon, stainless steel, or polymer.



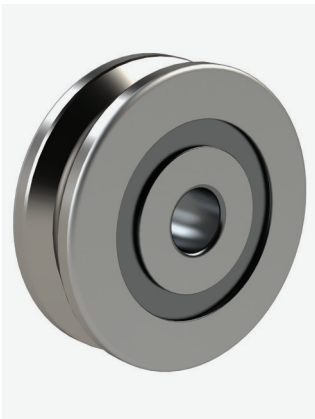
GV3: A linear motion system using a vee wheel design and a double-edged vee rail. Consisting of two single-row bearings, the GV3 is capable of supporting misaligned applications.



SL2: A guide in the GV3 family, the SL2 is made of stainless steel track and wheels combined with an aluminum alloy carriage. An ideal solution where corrosion resistance is needed.



HDS2: A heavy-duty linear motion system configurable to multi-axis systems. Ideal for gantry applications, the HDS2 is standard in stainless steel and is available with a rack drive option built-in.



MadeWell® Radial Wheels



MadeWell® Crown Wheel

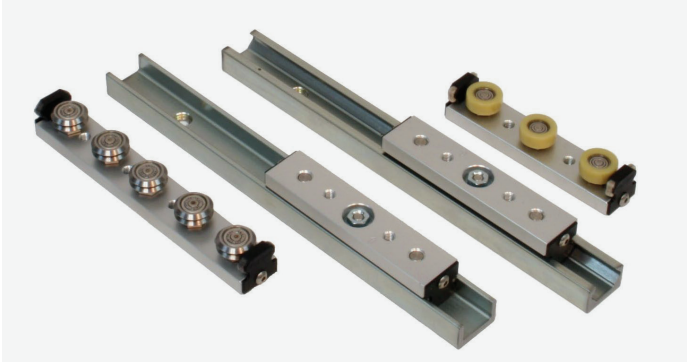


High Temp, Low Temp, Washdown, Vacuum, Food & Pharma, Solid Lube Bearings



DualVee® Solid Lubricant Wheel

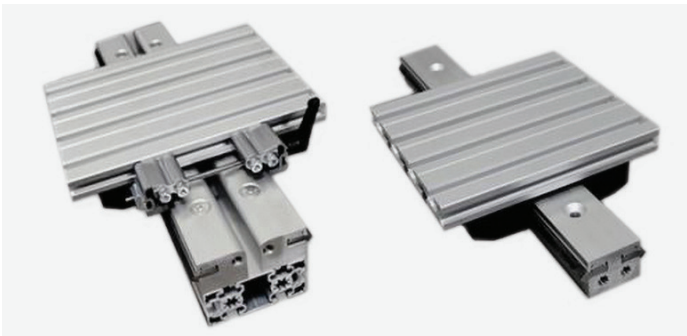
MANUAL LINEAR GUIDE SYSTEM



UtiliTrak®: A compact linear guide that offers smooth manual motion incorporating crown or vee rollers with a ground open or C-channel profile. Ideal for applications with misalignment.



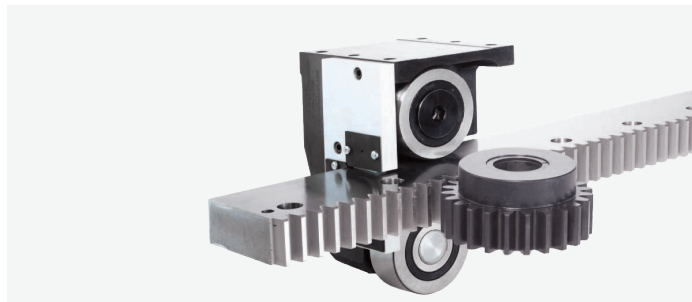
MinVee®: A compact double-edged vee solution suitable for applications in the medical, semiconductor or lab automation industries. Available in carbon or stainless steel.



QuickTrak®: A linear motion system using DualVee® components mounted with T-nuts into an extrusion. A patented process, this solution can be customized without additional machining.



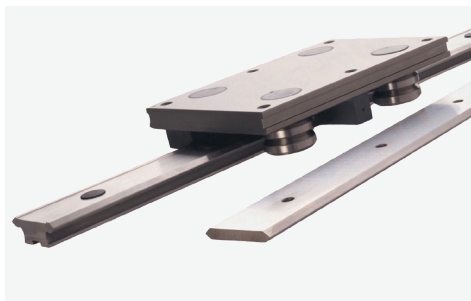
Simple Select®: A linear guide in the GV3 family offering a lower-cost version of the linear system. With unground surfaces and coated with black oxide, the Simple Select product is an easy-to-use component-based system for manual applications.



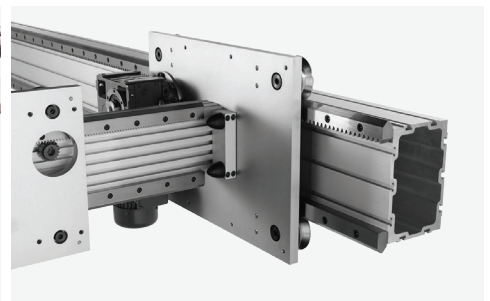
MHD: A linear slide system that is ideal for many heavy mechanical handling industries. Kit includes tracks and a set of four bearing blocks.



GV3

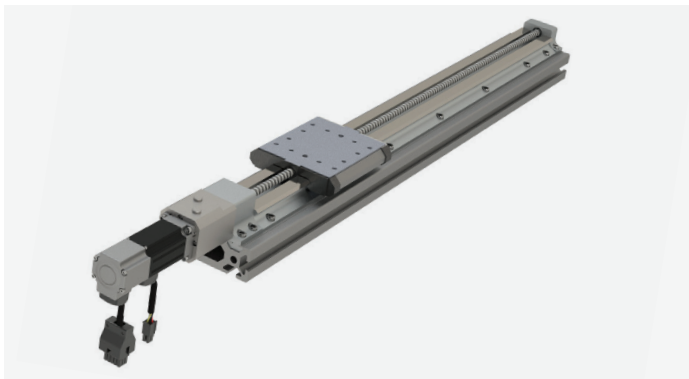


SL2

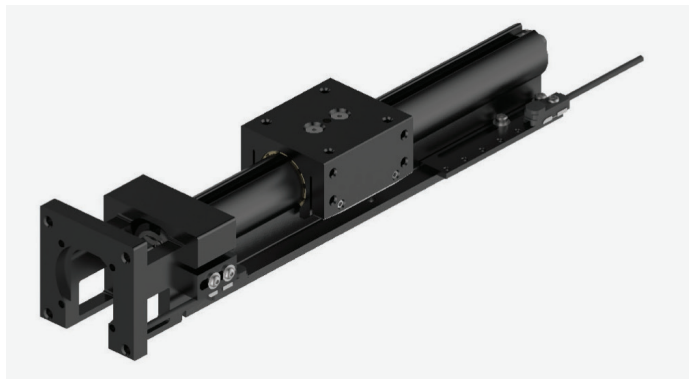


HDS2

ACTUATED LINEAR GUIDE SYSTEMS



LoPro®: A signature product of BWC, the LoPro® actuator uses the DualVee® wheel and track technology. Available in belt, screw or chain driven options, this is ideal for long applications and harsh environments.



SlickStick™: An entry-level actuator for lower speeds and smaller loads, the SlickStick™ incorporates a lead screw and plastic bushings. Its compact design and myriad of options make it suitable for simple applications.



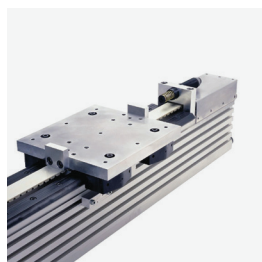
ECO60™: A more robust version of the SlickStick™, the ECO60™ offers the ability to carry higher loads and accuracy with longer lengths. Configurable for multi-axis with multiple motor mount options and brackets available.



SBD: An enclosed belt-driven system using profile rail guides. Offering higher capacity and a high-strength toothed belt, the enclosed actuator allows for the handling of contaminants.



XLA™



HDLS



HDSC



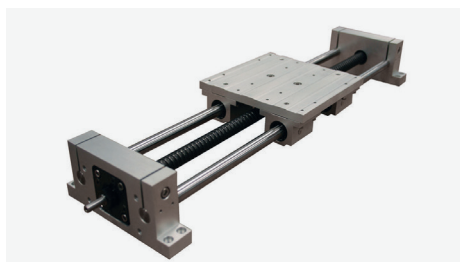
PDU2



DAPDU2



PSD



SteadyRail™



DLS

ROTARY GUIDE SYSTEMS



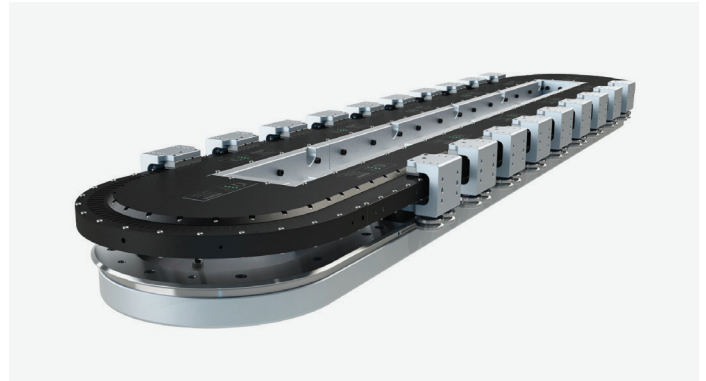
PRT2: A rotary version of GV3 that can be made up to a single ring size of 1.8m. This product is also available in segments creating rings with unlimited diameters. Full rings available in carbon or stainless steel.



HDRT: A heavy-duty version of the PRT2 with load capacity in the tonnes. This product is also available with a gear cut option and stainless steel versions.



DTS: A rectangular or oval track system with integrated carriages linked with a timing belt. This complex system is an excellent solution for assembly applications.



GFX: A track system that can be used only with Beckhoff Automation controls. Using linear servo technology, GFX offers high-speed operation and is ideal for packaging applications.



ALR Rings: Machined from high strength aluminum alloy and anodized giving them an excellent combination of durability and corrosion resistance for medium precision, lightly loaded applications. The rings run with Bishop-Wisecarver DualVee polymer guide wheels.



DTS2: This track system is a ready to fit scroll driven track system for high speed and rapid indexing applications requiring smooth movement making it ideal for any component assembly line in all industries.

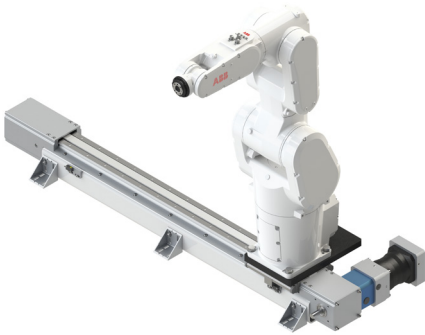


1-Track: This track system offers unparalleled versatility with its ability to achieve any 2D track shape, including reverse bends, variable radii, and free-form curves, making it ideal for space-constrained applications.

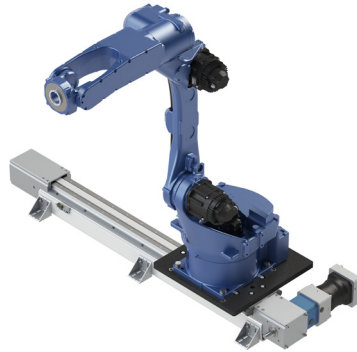
ROBOT TRANSFER UNITS - LOPRO®

The LoPro® RTU-L and RTU-M are designed around the **LoPro Linear Actuator** product line to provide accurate and durable motion. The RTU is based upon the size 4 actuator with a single or dual wiper wheel plate for larger robots and includes the steel support beam, cable carrier, non-contact travel limit sensors, a robot baseplate to adapt to select robots, and the gearbox with actuator mount so the RTU is ready for rapid and simple deployment into any automation project.

Light Capacity



Medium Capacity

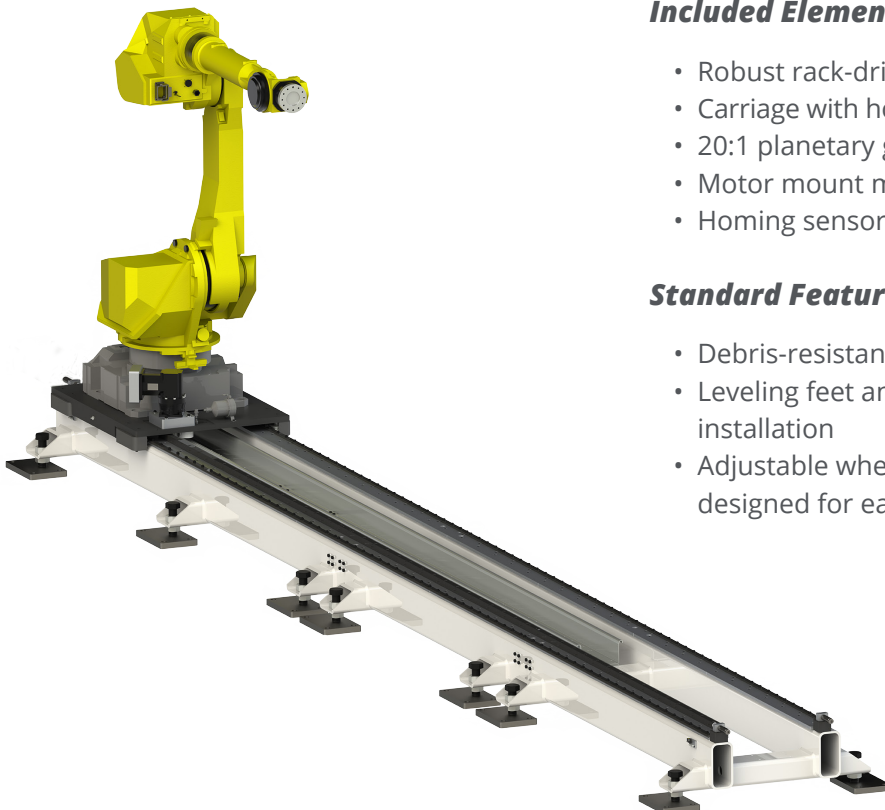


Light Capacity Inverted



ROBOT TRANSFER UNITS - DUALVEE®

The DualVee® RTU-H is designed from the ground up to provide accurate and durable motion for large robots and cobots. DualVee® RTU-H is suited for high capacity applications. Each modular system is designed for durability, easy-to-extend travel lengths, ease of installation and assembly, and low total cost of ownership.



Included Elements:

- Robust rack-driven module(s)
- Carriage with hole pattern matching your selected robot
- 20:1 planetary gearbox as standard
- Motor mount matched to your drive motor of choice
- Homing sensor kit

Standard Features:

- Debris-resistant and extremely durable DualVee wheels
- Leveling feet and lift points for easy positioning and installation
- Adjustable wheels and automatic lubrication systems designed for easy maintenance

INDUSTRIES SERVED

Aerospace



Agriculture



Architecture



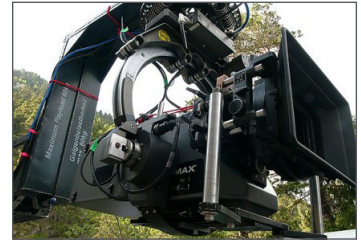
Automotive



Construction



Entertainment



Food Processing



Government/Defense



Lab/Pharmaceutical



Medical



Packaging



Textile



Transportation



Wood Product Mfg.

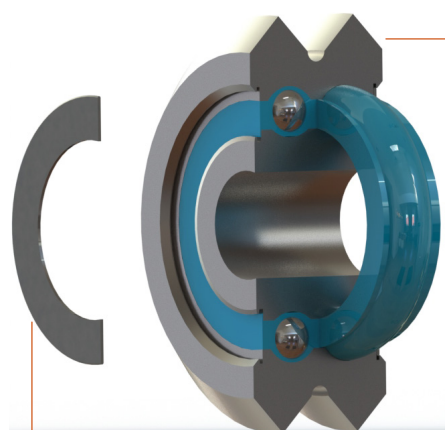


Warehousing & Storage



DUALVEE GUIDE WHEELS WITH SOLID LUBRICANT

Solid lubricant innovations extend never-before-seen reliability and longevity to Bishop-Wisecarver's proven DualVee® guide wheel motion systems – furthering their ability to excel in harsh and extreme environments.



Seal/Shield

Further protects against debris ingress and oil loss.

Stainless Steel Bearing

Provides corrosion, chemical, and wear resistance.

Self-Cleaning DualVee Motion Technology®

Uses vee profile wheels and track to wipe debris off running surfaces as the system runs.

H1 Food Grade Solid Lubricant

Ideal for retaining oil in food processing, food packaging, pharmaceutical applications, and more. Suitable for incidental food contact. Polymer is dyed blue for easy inspection.



Stainless steel retaining ring not shown.

EXTENDING LIFE IN HARSH AND EXTREME ENVIRONMENTS

Achieve upwards of **2.5X the travel life*** of grease-lubricated bearings. The solid polymer matrix can hold up to 30% more oil than traditional grease lubricant and **retains oil much better than grease (even under washdown conditions)**. Additionally, solid lubricant provides a natural resistance to debris ingress, moisture/humidity, chemicals (including acids, lyes, and solvents), and the spread of wear particles.

*Travel life is dependent on load. Tests have validated up to 6.59X predicted life for comparable grease-filled wheels.

DualVee Solid Lubricant Guide Wheels Are Ideal For:



WET & HUMID ENVIRONMENTS



FOOD GRADE



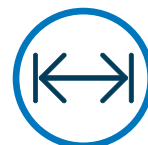
HARSH DEBRIS ENVIRONMENTS



LOW NOISE



SMOOTH, LOW FRICTION MOTION



LONG LENGTH

BISHOP-WISECARVER

Ingenuity That Endures

Powered by over 70 years of relentless problem-solving and steadfast reliability, Bishop-Wisecarver delivers innovative motion solutions around the world that thrive in harsh and extreme conditions. As a global leader in linear and rotary guide systems (both manual and actuated), Bishop-Wisecarver has the exact right solution for your needs.

WHY BISHOP-WISECARVER?

Our Deep Engineering & Technical Expertise

With our roots as a custom machine builder, our rich knowledge, relentless ingenuity, and technical expertise permeate all we do. We integrate mechanical, electrical and software engineering to deliver custom mechatronic solutions. This holistic approach provides you a faster time to market and increased revenues. We also simplify your complex electrical-mechanical sub-assemblies to provide you a single-source solution from prototype to full production, resulting in a significant cost savings. And we always offer custom engineering services and technical expertise in motion, sensor and actuator integration, real-time software development and electromechanical modeling and design, even for one system.

WE ALWAYS DELIVER A SIGNATURE EXPERIENCE

At Bishop-Wisecarver, we infuse our in-house engineering and design expertise with resourcefulness and grit to come up with reliable solutions that get the job done. But what makes Bishop-Wisecarver truly special is our commitment to seeing the world from your point of view. In fact, we promise to listen carefully, ask questions throughout, and thoughtfully consider your complex and unique needs before designing your solution.



Components & Accessories

DualVee®
MadeWell®
GV3
SL2
PRT2
HDS2
HDRT
MCS
Motor Mounts
Gantry Brackets
Wrenches

Manual Linear Guide Systems

DualVee®
UtiliTrak®
MinVee®
GV3
Simple Select®
SL2
HDS2
MHD
HTS

Actuated Linear Guide Systems

LoPro®
XLA™
ECO60™
SlickStick™
SteadyRail™
HDLS
HDCS
PDU2
DAPDU2
SBD
PSD
SDM
DLS

Rotary Guide Systems

PRT2
DTS2
DTS
DTS+
ALR
HDRT
1-Trak
GFX

Robot Transfer Units

DualVee® RTU
LoPro® RTU

Custom Solutions

Extruded Profile Guides
Custom Bearings
Custom Subassemblies
Engineering Services
Large Diameter Ring Guides and Track

BWC.COM

Women's Business Enterprise



- Certified WOSB

Quality Certifications



- Certified Bay Area Green Business
- Certified Evergreen

Certifications & Compliance

- EN 9100:2018
- JISQ 9100:2016
- ISO 13485 & GMP Compliance
- Responsible Minerals Initiative
- RoHS
- International Traffic in Arms Regulations Compliant



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