# Why DUAL VEE ?

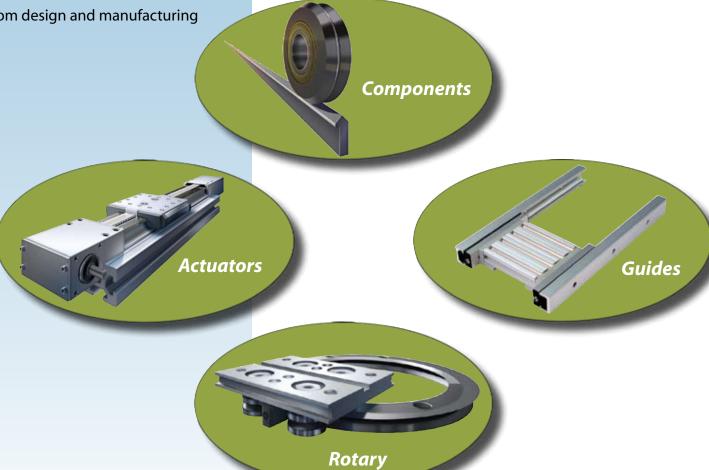
- Speeds up to 5.5 m/s
- Install or replace in minutes
- Self-cleaning action sweeps metal chips and other debris from the track
- Lubed for life to keep equipment up and running
- Long length systems for transfer between processes or conveyor lines
- Gantry ready systems for material handling

Custom design and manufacturing

# **Guided Motion Solutions** for Machine Tools and **Associated Products**

## **Designed for Critical** and Extreme Environments

Bishop-Wisecarver's wide range of linear motion systems and components provides complete versatility for the broad and diverse machine tool industry. Originally designed for harsh environment applications where existing technologies were ineffective, DualVee excels in extreme conditions. The vee design creates a velocity gradient, which results in a constant sweeping action that cleans debris from the track. Available for linear, rotary and curved track applications, guided motion solutions from Bishop-Wisecarver are limited only by your imagination.





## **Application Examples**

up to 1,000 lbs, cantilevered up to 48".





A multi-lateral drill press table pre-drills sections for mounting door hardware. The drill press forms holes for hinges, miter joints and door hardware. The driven LoPro system is ideal in an environment contaminated with debris.



Three ball screw driven LoPro systems are used on this plasma cutter, which operates in a very harsh environment consisting of smoke, abrasive dust, weld spatter, hot sparks, and elevated temperatures.



An automated multi-head drilling machine drills successive rows of 112 holes in large sheets. HepcoMotion® HDS Heavy Duty Slide system was selected because it provided the rigidity needed for accuracy.



A high duty, high speed pick and place application uses HepcoMotion DLS4 belt driven actuators for the X and Y axes, and HDCB Heavy Duty Compact Beam for the Z axis.



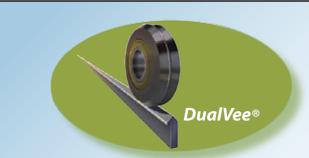


With metal shavings flying, intensified by cutting fluids that help the shavings stick to all surfaces, this CNC turning center uses DualVee wheels and track to move its heavy doors as well as the bar feeder. DualVee stands up to the rigors of constant opening and closing in a high debris environment.

### **Products**

As the pioneer of DualVee technology, Bishop-Wisecarver offers the widest range of guide wheel based linear motion products in the world. Our products are available in a variety of sizes to accommodate loads of all types, and a large selection of options and accessories make the possibilities virtually endless.

Our in-house applications engineering team is available to assist you in designing a custom solution to fit your unique application needs.



#### Wheels

- Carbon steel, polymer and stainless versions from stock
- 6 standard sizes to accommodate envelope and load carrying requirements
- Choose from original DualVee, studded guide wheel assemblies, or new patented integral wheels
- Sensitive rolling elements are isolated from the environment

#### Track

- Patented mounting shoulder for ease of installation
- Single piece lengths up to 20 feet hardened, 22 feet unhardened, easily joined for long lengths
- 1045 carbon steel or 420 stainless steel from stock
- Custom plating options include black oxide, thin dense chrome, electroless nickel, or zinc



QuickTrak® clamp extrusion offers a quick and economical way to accurately mount DualVee track.





#### **PW Series**

- Lightweight, low cost, corrosion resistant
- Polymer overmoulded stainless steel integral DualVee wheels and MadeWell® crown rollers
- 6063-T6 aluminum alloy channel
- Loads to 311N

#### **SW Series**

- Excellent load capacity, high speeds
- Steel integral DualVee wheels and MadeWell crown rollers
- One piece ground alloy bearing steel channel
- Loads to 14,040N

### **CR Series**

- Good load capacity, corrosion resistant
- 440C stainless steel DualVee wheels
- Stainless DualVee track on extruded aluminum channel
- Loads to 5,739N



- Low profile linear actuator built on proven DualVee technology
- Belt, chain, ball screw, lead screw or un-driven
- Excellent for long length applications such as material transfer
- 4 sizes to accommodate loads up to 15,684N
- Complete line of gantry accessories and motor mounts
- Corrosion resistant versions available



- Create customized systems to follow virtually any path
- 360, 180 and 90 degree rings, curved segments, and straight slides
- Nine diameters from 93mm to 1,033mm
- Gear drive option on inner or outer diameter provides means of actuation
- Available in carbon or stainless steel

**Bishop-Wisecarver Corporation:** Manufacturer of the original DualVee® guide wheel and industry leader in guided motion technology, and exclusive North and Central American partner and distributor for HepcoMotion products since 1984.

# BISHOPWISECARVER®

### **Bishop-Wisecarver**

DualVee® Guide Wheels
LoPro® Linear Motion System
MadeWell® Crown Rollers
MinVee® Linear Slide System
QuickTrak® Clamp Extrusion
UtiliTrak® Linear Motion Guide



## **HepcoMotion**®

DAPDU2 Double Acting Profile Driven Unit

**DLS Driven Linear System** 

**DTS Driven Track System** 

GV3 Linear Guidance and Transmission System

**HDCB Heavy Duty Compact Beam** 

**HDCS Heavy Duty Compact Screw** 

**HDLS Heavy Duty Driven Linear System** 

HDRT Heavy Duty Ring Slides and Track System

**HDS Heavy Duty Slide System** 

MHD Heavy Duty Track Roller Guidance System

MCS Machine Construction System

PDU2 Profile Driven Unit

PRT Precision Ring and Track System

PSD120 Profile Screw Driven Unit

SBD Sealed Belt Drive

Simple-Select®

SL2 Stainless Steel Based Slide System

#### **3D CAD DRAWINGS**

Download 3D CAD files for our complete product line at www.bwc.com/3dcad.php.

#### **GOT A TOUGH APPLICATION CHALLENGE?**

Ask Bud at www.bwc.com/blog/?cat=11.

#### **PRODUCT ORDERS**

Please call Bishop-Wisecarver with your specific application requirements. Our technical staff is available to assist with your custom solution.

Bishop-Wisecarver provides a written three year limited warranty on our Swiss bearings and a written one year limited warranty on all other products, assuring the customer that its products conform to published specifications and are free from defects in material or workmanship.

 $Complete \ terrms \ and \ conditions \ and \ warranty \ information \ is \ available \ at \ www.bwc.com/about\_conditions.vp.html.$ 

