



# WESTWIND

*Revolutionary Technology*

## Monogon Scanners



### Air Bearing Benefits

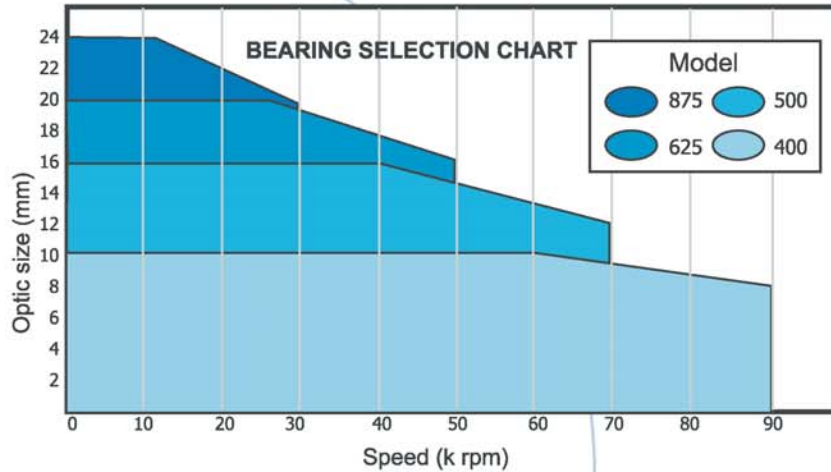
- Long life
- Low friction
- Reduced vibration
- No contacting parts
- No contamination
- High accuracy
- High speed

Westwind's range of superior scanning spindles guarantees increased productivity and cost reductions and has been successfully applied across a number of applications including pre-press, PCB imaging and inspection equipment.

Outstanding spot positioning performance and high speed potential come as standard with Westwind scanning spindles. Air bearings have no contacting parts, resulting in low vibration and friction, minimising in-scan and cross-scan errors and increasing spindle life. Minimal levels of disturbances and frequencies generated within the bearing give the controlled performance required for excellent speed stability. No lubrication is necessary, so there is no source of contamination - essential in an optical application.

Westwind's collection of standard spindles suitable for monogon optics use self-generating air bearings so no external air supply is required. Westwind also manufacture a range of spindles with pressurised bearings suitable for polygon optics and heavy monogon optics.

Westwind's self-generating bearings come in four standard models. The bearings are optimised for a range of speeds and optic size, as shown in the chart below:

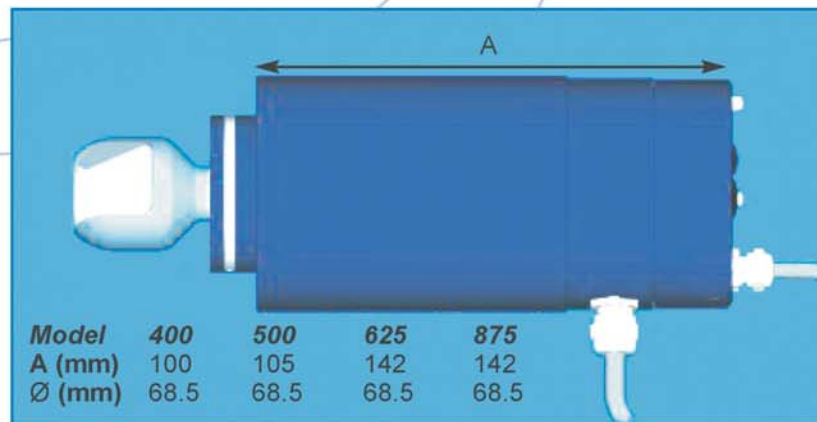


For further information on larger optics, please enquire.

The standard optic option is a ball prism - a cube prism shaped to improve aerodynamics. The input beam to the prism is deflected through 90°, normally with a reflectivity of >92% dependent on wavelength. Prisms are anti-reflection coated to minimise back reflections and are available in clear aperture sizes of 14mm, 16mm, 18mm, 20mm, 22mm and 24mm.

If a ball prism is not suitable, custom mirrors can be sourced. These will have a biased surface to compensate for centrifugal distortion, meaning that they are optimised for operation over a narrow speed range. For multi-speed operation, a ball prism is recommended.

All spindles are fitted with an optical encoder. The standard option is 1000 lines, with other line counts available on request. Drives are available for all Westwind spindles and standard speed stability performance with a Westwind matched drive is <1ppm over a single revolution.



## Westwind Air Bearings Limited

Westwind Air Bearings is universally recognised as a world leader in the design and manufacture of air bearing spindle systems. Service and sales support is available worldwide through a network of offices, distributors and approved repair centres.

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