



Genuine Westwind Parts



# The Dangers of Using Imitation Parts

For over 40 years, Westwind Air Bearings has been universally recognised as a world leading manufacturer of air bearing spindles. Produced to exacting specifications, Westwind PCB drilling spindles use only genuine parts.

Failure to use genuine Westwind parts in your spindles will result in:

- Reduced quality of your drilling
- Premature spindle failure
- Reduced radial loads
- Reduced axial loads
- Incorrect air flow
- Higher runout figures
- Increased current and motor slip
- Faster spindle failures
- Increased costs

How can Westwind make these claims? Because we tested imitation parts in our spindles:

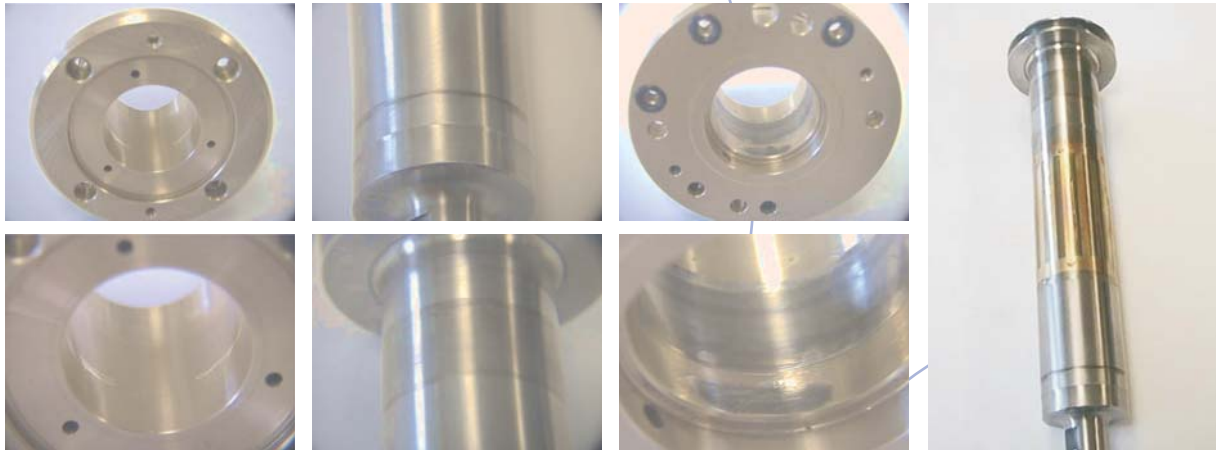
*Case Study:* Westwind obtained an imitation front bearing, rear bearing, thrust plate and collet. The components were then built into a Westwind D1331 125k rpm spindle, which was then run (without loads, which would be applied during normal drilling) to the same specification as genuine Westwind spindles. The results were alarming...

The spindle:

- Failed within one day
- Consumed 40% excess current
- Exhibited increased slip
- Shaft speed could not be properly controlled
- Air flow was 35% below our specification

Six major specifications could not be achieved, including axial and radial load tests which are critical to ensure accurate drilling over time. Spindle air flow was erratic and dynamic runout figures were over 20 microns.

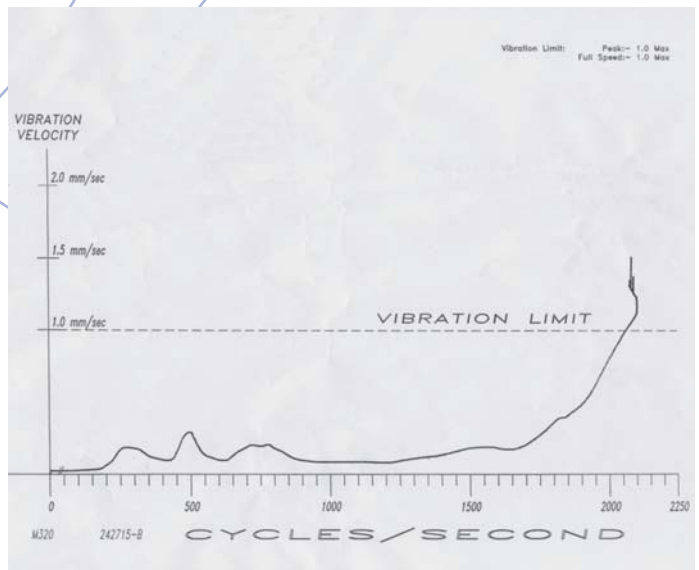
Whilst the parts looked satisfactory when visually inspected, they were poorly finished and had many dimensional errors. The spindle seizure resulted in component damage as shown below:



Any spindle repaired with these parts would operate far outside your OEM's specifications, and would likely fail almost immediately, even without any load. The rapidity of the failure witnessed at Westwind also raises safety concerns for operators and technicians.

The vibration trace (pictured right) shows the vibration of the spindle as it was run up to full speed. The trace was aborted when the spindle seized, at the point where the trace goes vertical.

Your choice of service partner is essential to ensure the best performance from your spindle. Westwind's worldwide network of Approved Service Centres repair spindles using genuine Westwind parts and approved test equipment and procedures. Visit [www.westwind-airbearings.com](http://www.westwind-airbearings.com) to find your nearest Westwind service centre.



**For quality, productivity and peace of mind, demand genuine parts from the World's #1 Spindle Manufacturer. Do not accept anything else.**

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