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The Chair That Leans Into Its Work

By Walter Alan Zintz

This is the first in a series reviewing products for workstation users; products claimed to be ‘‘ergonomically designed,’’ or otherwise better for people who feel the strain of working at a terminal/workstation. All reviews will be written from hands-on experience with the product over at least a month, and all will be done by testers who have the sort of problem the product is supposed to alleviate.

Computer users who have back problems soon learn the truth in the common advice that sitting is one of the worst things you can do to your back--much worse than standing up or lying down. I have trouble with both my lower spine and my sacroiliac, so finding a posturally-correct chair is a necessity if I’m to work at my terminal without standing up the entire time. (Before you ask, I certainly cannot stand upright for any length of time without moving around, not without killing my legs. How the office clerks of bygone centuries worked at their stand-up desks all day baffles me.) I’ve already tried enough conventional chairs in different sizes and styles to know that they are not the answer.

A Unique Design

The Vertebra design has an international pedigree. It was created by two Italians, was introduced to the world by a firm in the Netherlands, and is now the product of a company in the United States. It has been on the market for decades, with no substantial changes, and has won several design awards.

Vertebra’s major innovation is the way it flexes in the fore-and-aft direction. First, the seatback is not hinged for tilting backward at the point where it connects to the seat pan. Unlike conventional office chairs, Vertebra puts the hinge point about six inches higher, so that to lean backward you flex in the small of your back, not at the hip joint.

Second, it has a lean-forward mode. When your legs press down on the front of the seat pan as a result of leaning forward, the pan and the back as a unit tilt forward with you. This is not an avalanche. There's a reasonable amount of resistance, and the total forward tilt is limited to six degrees, so the chair will never dump you onto your keyboard.

A Tri-Angular User

For me, those tilts make a vast difference. When I'm at my terminal and thinking what to type in next, I prefer to sit with my back vertical. My Vertebra chair's normal position accommodates this very well, because I chose a model with a nearly-vertical backrest. When I'm ready to type I instinctively lean forward a little--the chair leans with me, so I never feel numbing pressure on my legs just above the knees. And since the backrest also leans forward with me, I don't have to guess how far away it is when I lean back again.

Of course there are times when I have to think at length. I used to find myself slumping forward in those situations because if I leaned back in a conventional chair it was too hard for me to sit up again. But leaning backward from the small of my back makes it no trouble at all to sit up (trunk muscles are much better leveraged than hip flexors). As a bonus, I find this back-flex position more conducive to active thought.

But this chair is really indispensable at my drawing board and light table. There I often need to lean far forward over the working surface, and I used to have to stand up to reach the farther work areas. My Vertebra chair has cut the need to stand up by more than half.

The gotcha is that nothing on this chair is adjustable except seat height. Whether it will suit you depends very much on your size. I weigh about 180 pounds, and I find the flexing mechanisms just about right for me--if anything, a little stiffer than I'd prefer. The indentations in the seat pan are barely wide enough for me. In particular, the outsides of my thighs press numbingly against the outside front edges of the seat pan unless I remember to keep my feet flush together.

This flexibility does not require that the chair look like a derrick. Some of the necessary mechanism fits under the seat pan, in no more space than a typical office chair uses. The rest is inside the tubes that hold up the chair back, and they're only a modest inch and a half in diameter. The only way this chair looks unusual in an office is that the tubular components are covered with a bellows that looks (especially if you've chosen black as the frame color) a lot like flexible automobile radiator hose.

But will this unusual mechanism hold up? Yes. I bought my Vertebra chair second-hand, and used it for about five years before it needed any service. Functionally similar Vertebra seating has been in use in the waiting areas of New York City's Port Authority Bus Terminal for years, and I haven't seen any of those broken. When something does let go, repairs are usually not complex, though they're not anything the office handyman can do.

The Total Chair

Vertebra chairs come in several lines, from executive suite stuff to ganged chairs with integral end tables for the front lobby. I chose the Operational line as the most suited to sitting in front of a terminal. Aside from the special features above, it’s a typical modern, high-line clerical chair. The frame comes in neutral office colors as well as black. A vast range of upholstery fabrics and colors is offered: I took one of the cheapest fabrics, which still shows no signs of serious wear, and I’ve never had to clean the upholstery.

Back height is about 13 inches. My backrest is just about vertical, but these chairs also can be had with a backrest slanted back at a moderate angle. Even my short legs (29 inch inseam) don’t bump against the front edge of the seat pan when I move around.

Integral armrests (made by angling the tubes that support the backrest) are optional. These are among those rare armrests that are short enough and low enough not to interfere with typing, for most people. I’m the odd man out here, only five feet ten inches tall, but with a 35-inch shirtsleeve length so I had to go with the non-armrest version. (These chairs are also available with bolt-on armrests, but those are too high for almost anyone who types.)

My chair came with thin padding on both the seat pan and the backrest: about an eighth of an inch thick. I could have had essentially the same chair with ordinary overstuffed cushioning in the Systems line, but the polypropylene shells were well-enough shaped that I didn’t see any need for this. A real masochist can order an Operational line chair with no upholstery at all; just textured areas on the shells to inhibit sliding off.

Because I’m the only one using my chair, I got the version that adjusts the seat height when I spin the chair while it’s empty. It works smoothly, the adjustment range is large but the increments are fine, and I won’t lose the adjustment by accidentally bumping a lever. But for chairs that will have multiple users, a quick-change pneumatic height adjustment is offered.

The chair base is a five-arm design. I chose carpet casters, and found they roll easily whether I’m sitting in the chair or not, but don’t move me accidentally. Hard-floor casters and non-moving glides are available. If you can’t keep your feet from tangling with the base arms, look at used Vertebra chairs. Until a few years back, Vertebra chairs were also offered with a smooth steel-disk base that nothing could get caught on.

Value for Your Dollar

The posted list price of almost any serious ergonomic chair looks pretty stiff compared to what the local office discounter charges for chairs that look all right. There are some things to be said in defense of these ergonomic seats, though.

List Price is Only List
: In the office furnishings business, list prices are set to give space planners, interior designers and such plenty of margin to cover their own services. Many dealers charge substantially less than list on cash-and-carry sales.

Dollars per Chair Versus Dollars per Year
: As my experience with my Vertebra chair shows, most ergonomic chairs are built to last a lot longer than the stuff you’ll see featured at a discount warehouse. Whether you replace economy chairs when they break or have them repaired, the costs add up.

Anything’s Priced Right If You Really Need It
: If an ergonomic chair lets you work an extra half-hour a day at your terminal, that’s the equivalent

of three extra work-weeks in a year. In that light, the price of any chair looks awfully reasonable.

Just one word of caution. Mail order houses sometimes have very attractive prices, but no review can be a substitute for actually sitting in a chair for a while before you buy it. The feel of a good chair is a pretty personal thing, physically and psychologically. Don't get stuck with something you can never learn to like.

Purchasing Data

Product: Vertebra Operational Chair
List Price as Tested: $761.25
Sold via: Authorized Dealers
Vendor: KI
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