

Go with the Flow!

Vacuum blowers reduce operating costs in CNC hold down

PROBLEM: A large furniture maker had issues with vacuum hold-down on their CNC router tables. Despite having multiple rotary screw vacuum units set at 27" Hg vacuum, plywood sheets moved after portions were cut away — resulting in significant scrap materials and downtime. Over time, 40 hp vacuum screw units were upgraded to 100 hp units and special roller bars were added to help keep the sheets in place. Energy and maintenance costs rose noticeably, and the problems continued.

SOLUTION: Kaeser engineers noted that since this was a spoiler board application, high flow is more vital to keep work pieces in place than vacuum level. They recommended blowers instead of traditional screw or vane vacuum pumps. This ran contrary to the operator's experience but after continued problems they agreed to try it on one table. Kaeser installed one Omega DB 236C (30 hp) vacuum blower operating at 13" Hg. After a successful test period, the plant removed several of their large vacuum screw pumps and replaced them with three additional DB 236C units.

RESULT: In addition to improved hold down, the total motor reduction from 320 to 120 hp reduced energy costs by 65%. The maintenance manager also noted a significant reduction in maintenance and repair costs. The blowers had less oil and consumables, making them a greener solution. As an added bonus, the blower packages have a significantly smaller footprint.

To save on energy, maintenance, and repair costs, as well as floor space, sometimes you just have to go with the flow!



Energy Costs for Previous System: \$119,000 per year

Energy Costs for New System: \$45,000 per year

ENERGY SAVED: **\$74,000 per year**

Savings in Maintenance Costs: **\$25,000 per year**

Floor Space Saved: 105 sq. ft.

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Sustainable Savings

Kaeser's rotary lobe blower packages go to work reducing your life cycle costs as soon as you start them up. They deliver higher flows with less horsepower, and their simplicity reduces maintenance costs.

Our integrated blower packages are fully enclosed for protection from dirt and dust. Onboard controls and sensors ensure dependable operation and maintenance reminders. Communication ports enable better asset management with remote monitoring and energy tracking.

Available fixed or variable speed.

Call us today... you'll thank us tomorrow!



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Built for a lifetime.

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