

Go with the Flow!

Using vacuum blowers for better hold down in CNC router table applications

PROBLEM:

For many years, the compressed air system for an industry leader in furniture manufacturing relied on vacuum instead of flow to provide hold down for their CNC router tables.

Despite having multiple rotary screw vacuum units providing up to 27" Hg vacuum, there was still significant scrap materials and downtime since the sheets would move after portions were cut away. The 40 hp vacuum screw units were upgraded to 100 hp units and special roller bars were added to keep the sheets in place, but the problems continued.

Additionally, the leather fibers and dust that go hand-in-hand with this type of installation were harsh on the vacuum screw units. Filters collapsed and airends had to be replaced due to contamination.

SOLUTION:

Kaeser provided a unique solution – it's not the vacuum that provides the hold down, it's the flow that keeps the sheets of wood in place. Kaeser recommended an Omega DB 236 with optional external STC controls and additional DB 236C units with integrated controls to replace the multiple vacuum screw units.

RESULT:

In addition to providing outstanding hold down, the blower packages have a significantly smaller footprint – almost a quarter of the size of the 100 hp screw compressors. These blower packages require less routine maintenance and are less sensitive to the ambient conditions. They also use less oil and require few consumables, making them a greener solution. Finally, the energy savings have been significant – only 120 hp is needed to provide exceptional hold down instead of the 320 hp previously used for the vacuum screw units. To save on space, energy, and maintenance costs, sometimes you just have to go with the flow!

Operating Energy Costs for Previous System:	\$119,000 per year
Operating Energy Costs for New System:	\$45,000 per year
Floor Space Required for Previous System:	175 sq. ft.
Floor Space Required for New System:	70 sq. ft.
Additional Savings in Maintenance Costs:	\$25,000 per year



Results Today • Savings Tomorrow

Kaeser's blower packages are designed to give you energy-efficient results today that will start saving you money the day after you install them.

Our fully integrated models feature controls and sensors to ensure dependable operation in one fully enclosed package.

Our unmatched reliability, simple maintenance, and low power consumption reduce overall life cycle costs.

Call us today, you'll thank us tomorrow!



Kaeser's Com-paK blower packages feature a full scope of supply that is unmatched in the industry. Learn more at www.kaeser.com/omega

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