

Alternative market segments of kunst vacuum pump company

[Finance](#), [Market](#)



The purpose of this report is to analyse the alternative market segments of Kunst Vacuum Pump Company and give suggestions for their next move. Based in Minneapolis, Kunst Vacuum Pumps is the recently acquired U. S. Division of Atler GmbH. During the previous fiscal year, Kunst sales soared to a 75-year record of \$120 million. The firm manufactures top-end (i. e. , 6 or more CFM) vacuum pumps for use in highly demanding laboratory, healthcare, and industrial applications. For example, in the lab, engineers rely on Kunst pumps in freeze-drying, vacuum oven, and distillation processes.

In high tech industries, operations personnel employ Kunst pumps in the production of cathode ray tubes and computer chips. From a technical standpoint, Kunst pumps provide a " deeper draw" (i. e. , they can evacuate chambers down to almost a perfect vacuum) and are more efficient at lower pressure levels than competing models. Scientists, engineers, and health care professionals highly regard the Kunst brand name. Not surprisingly, Kunst holds a 60% market share in laboratory, health care, and industrial applications.

Evan Stone, a senior product manager at Kunst Vacuum Pumps had to identify and target high potential market segment(s). He planned to do so by determining in which segment(s) the Kunst 1600 stood to deliver the greatest value. Evan speculated that the residential air-conditioning (AC) repair segment would offer the best opportunity. Second, Evan had to develop a value proposition for the Kunst 1600 for each segment targeted.

At this point, he wasn't sure whether to stress the fact that the pump did not require oil changes or that it had a projected lifetime of 6 years.

Market research indicates that the annual U. S. sales potential for vacuum pumps in each of these market segments to be as follows: home refrigerator repairs (60, 000 units), light commercial refrigerator repairs (40, 000 units), and residential AC repairs (125, 000 units). Evan's initial beliefs were that the residential AC repair market offers the greatest opportunity for the Kunst 1600 and that AC contractors stand to gain the greatest value from the Kunst 1600. Furthermore, he believes that they can make a convincing argument for the Kunst 1600 even though, most residential AC contractors use from 3 to 6 CFM vacuum pumps for repairs.

Most AC system nozzles and vacuum pump hoses are one-quarter inch in diameter. At that diameter, "resistance" retards the vacuuming process to the point where a 1.6 CFM pump takes about the same length of time to evacuate a system as does a 6 CFM pump. The most important benefit that the Kunst 1600 provides in all potential market segments is that technicians will not have to change the oil! All vacuum pump manuals recommend that technicians change the oil after each repair job. Each oil change typically takes a quart. At \$8 per quart for specialty oil, that can be quite costly on an annual basis.

Furthermore, it takes a technician around 30 minutes to change the oil on a 3 CFM pump. Given that the typical AC repair technician is paid a rate of \$30 per hour, the labour costs associated with changing oil must be staggering.

Changing oil is a messy nuisance for every technician. Each time a repair technician has to clean up this oily mess, he or she uses \$. 50 worth of a solvent-based scouring soap and \$. 15 of a specialized cloth-fiber based towel. To protect the environment, most U. S. cities require proper disposal and recycling of all oil-based liquids. The average charge for recycling used oil is around \$5 per gallon.

The Kunst 1600 is made from injection-molded aluminium. It will not rust like vacuum pumps made of steel. Furthermore, the Kunst 1600 has far fewer internal parts than competitive models. He predicts that the Kunst 1600 will take more physical abuse (e. g. , being tossed into trucks and getting rained on) and be far more durable than traditional vacuum pumps. Because it is constructed from aluminium, the Kunst 1600 will weigh 5 to 10 pounds less than competing products. Technicians will appreciate the weight savings. Potential customers will be willing to pay a price premium to obtain a vacuum pump with the Kunst brand name on it.

When the research had been completed, the most important thing that they discovered was that AC and refrigerator repair is an art that technicians practice rather than a science that engineers meticulously execute. Many repair technicians have never completed rigorous training programs and few states certify technicians. Personal opinions, preferences, and "rules of thumb" dictate how repair work is completed. The market research certainly hasn't supported Evan's initial beliefs, yet there still may be an opportunity for the Kunst 1600.

The Kunst 1600 does not require oil changes as opposed to traditional pumps, which require an oil change after each use, or once a month, thus saving time and money. It takes 1 hour for a Kunst pump to complete a job for Ac repair firms, thus it is not profitable. For light commercial and home repair firms, a Kunst vacuum pump will bring 2 more jobs per week, because by working at lower pressure levels it reduces vacuuming time by 10 minutes. The price of Kunst vacuum pump is 400\$, which is twice the price of Air Master competitor, and 150\$ more than the price of the pumps made by Pumps Wizard. The resale price for Kunst is 500\$.