

# New compressor helps precision metal-cutting firm **trim energy use.**

## Profile: Laser Cutting Services

**Problem:** At Laser Cutting Services, two old air compressors were using a lot of energy but no longer providing the reliable service needed to operate the company's integrated laser metal-cutting systems.

**Solution:** A new, 50-horsepower high-efficiency compressor with a variable frequency drive provided the needed reliability while cutting energy use down to size. The company also earned incentives and tax-credits, which trimmed the payback period.



*"We save money right from the get-go."*

*– Ron Duffy, owner of Laser Cutting Services*

**When Ron Duffy sees a better way of doing something, he jumps on it.** That's what first inspired him and his wife, Bobbi, to open Laser Cutting Services, a custom metal-cutting facility.

"When laser technology came onto the scene I was fascinated with this new way of cutting. I saw that the laser offers the best way to cut metals," explains Duffy. "It's very clean and accurate, and can cut most types of metal to almost any shape."

But after more than a decade of steady growth and average 18-hour-day operations, the manufacturer's two air compressors were showing their age and growing increasingly unreliable. That threatened productivity and the Tualatin company's ability to provide fast turn-around for their customers.

### VFD the way to go

A representative from Pacific Air Compressors, who had serviced the aging compressors, mentioned the advantages of a new, high-efficiency compressor with a variable frequency drive (VFD), and the availability of incentives and tax credits. Duffy immediately realized "that's the way to go" and started the upgrade process.

*find out more on the back >>>*

**Portland General Electric**

## Company at a glance:

Laser Cutting Services, of Tualatin, is the local leader in precision laser metal-cutting services. They serve primarily industrial customers and also architectural clients. They recently upgraded to a high-efficiency VFD-controlled air compressor to boost system reliability and save energy.

## How can PGE help you?

PGE can assist your business with free energy classes, billing and payment plans, renewable power options and other services. We can also tell you about energy cash-back incentives and tax credits. Contact the PGE Business Services Team at **503-228-6322** (Portland), **503-399-7717** (Salem), or **1-800-542-8818** (outside of Portland/Salem). Also find in-depth information online at **PortlandGeneral.com/SaveEnergy**.

## Incentives and tax credits help cover the cost

Duffy chose Pacific Air Compressor to install one 50-horsepower (hp) VFD air compressor to replace the two failing compressors.

PGE Customer Technical Services group, serving as the program delivery contractor for the Energy Trust Production Efficiency program, provided a project evaluation and assistance through the process.

“It was great to have the help at every step, working through the paperwork, even the tax credit application,” says Duffy, who earned a \$4,595 cash-back incentive from Energy Trust as well as a \$3,538 Oregon Business Energy Tax Credit. The incentive and tax credit reduced the payback on the energy-efficiency portion of his investment to just over two years.

## Energy savings just the beginning

Since July 2008, Laser Cutting Services has been enjoying the advantages of the new VFD air compressor, which is on track to save an estimated 50,305 kilowatt-hours of electricity annually — or about \$3,250.

Duffy also expects the new compressor to last even longer than the decade-old compressors it replaced. Rather than running at full output all the time, the VFD adjusts the speed, matching compressor output to system demand. Less wear and tear means a longer life.

“It gets the work done, provides better reliability and it will last as long as possible,” says Duffy. “We save money right from the get-go, and save every month. It’s a no-brainer!” What’s more, the new system provides additional capacity, allowing for future growth.

## New equipment is “greener” too

Duffy also sees beyond the bottom-line benefits of this energy-efficiency upgrade to the bigger picture.

“I’m always looking for ways to be more energy efficient,” he says, citing a earlier energy-saving lighting upgrade. “As a baby boomer, I’m worried about what we’re doing to our planet, and I want to do what I can to help.”



*A high-efficiency VFD compressor provides better reliability and energy savings for Laser Cutting Services.*

## Energy Tips for compressed air

- *Avoid using compressed air for open blowing, agitating, stirring, mixing or transporting material, when possible.*
- *Start a planned maintenance program.*
- *Repair leaks.*
- *Shut down airflows to unused equipment.*
- *Reduce compressor operating pressure and pressure regulator settings.*
- *Install high-efficiency compressors with variable frequency drives.*
- *Install automatic compressor controls to modulate and sequence operation among compressors.*



Find more information online:

**PortlandGeneral.com/Business**

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