



PSF Mechanical, Inc.
"Trusted to be the Better Choice"

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QUARTERLY

PSF SERVICE: The Broad Focus

By Bob Moon, Service Manager

The economy has put pressure on property managers and building owners relative to the costs associated with managing their assets. HVAC service is not immune from the desire of building management to recognize better results at less cost. With this as a backdrop, it may be time to review the objectives of HVAC system service. These are a few of the items that may come to mind:

- Tenant comfort, to support lease renewal and general satisfaction of tenants with the building they occupy
- Operating efficiency, as reflected in the utility invoices for the property
- Equipment reliability, as emergency service and equipment repairs can be very expensive
- Investment value and productivity of the property as an asset

HVAC service will have an impact upon all of these and thus it may be time to review your stance regarding the service that your building is receiving.

If you manage a high-rise property, you probably have a central system that includes chillers, pumps, cooling towers, central air handlers, VAV boxes, and a DDC control system. If you have a mid-rise property, you probably have one or more packaged units, VAV boxes, and DDC controls. We know these systems well as we design, build, and provide service for them.

At PSF, we consider your assets in personnel as much as we pay attention to your physical plant. Our goal is to blend the knowledge and experience of our service technicians with the capabilities of your building engineering staff. We approach each property as a


unique entity and work with you to define the tasks that need to be performed and the independent roles of the building engineers and our service technicians to ensure that the appropriate work is completed. Once roles are established and a scope of work determined, a program can be generated to schedule and implement the maintenance tasks, document the work performed, and communicate recommendations for further investigation or repairs. The result will be the delivery of reliable and efficient comfort for your tenants.

In the life of a building, obsolescence of HVAC systems and components is something to plan for and address physically as well as financially. That too is part of PSF Service. Our service technicians in concert with our account executives will bring to your attention HVAC system issues that should be considered inside of a five-year capital budget plan. Together with our engineering and construction staff, we will support the analysis, evaluation, application process for utility rebates or grants and planning and implementation required for you to achieve your goals for your building.

In short, PSF Service will be your ally for HVAC system maintenance, emergency response, re-commissioning or modernization to ensure the value of the building asset that you manage is optimized.

CURRENT PROJECTS

- Seattle Children's Hospital Airplane 5
GME Offices T1
Seattle, WA
HVAC, Plumbing & Piping, Commissioning
- Gilead Scientific
Seattle, WA
Life Sciences Tenant Improvement
- Joshua Green Remodel 
Seattle, WA
HVAC, Plumbing & Piping
- Boeing 45-01 Paint Hangar, Restroom Upgrade
Everett, WA
Includes Motion-sensor plumbing fixtures
- Northwest Hospital HBO
Seattle, WA
Medical Gas Plumbing & Pipefitting
- Nordstrom Fashion Island
Newport Beach, CA
Full-line Store
- Nordstrom Rack @ Millenia Crossing
Orlando, FL

 Refers to Certified Projects

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The "Next Generation" of HVAC Compressors.

A refrigeration compressor that ...



- Saves 50% on energy costs
- Contains no bearings
- Has its own brain
- Never needs oil
- Stays quiet
- Has no locked rotor amp rating
- Is environmentally friendly

**Team:**

Nate Wilcox - Account Executive, Scott Wallace - PM
Ron Cummins - Project Engineer, Pete Fasano - Foreman

Redmond Software Company, Building 111

- 100,000 ft² Office Building
- Redmond, WA

Team Members:

- Owner - Redmond Software Company
- Architect - ZGF Architects
- GC - Sellen
- HVAC & Plumbing - PSF Mechanical, Inc.

HVAC & Plumbing Systems:

- Existing 236 ton unit re-configured to serve floors 1 and 2
- New 100-ton split (VAV) dedicated to floor 3
- Capacity increased by 1/3 without impacting roof screening - avoiding major design review delays
- Conversion to high-efficiency plumbing fixtures
- Outside air monitoring used for demand control ventilation
- Existing 236 ton fan unit retrofit with Turborcor magnetic bearing compressor

**Team:**

Jim Reynolds - Account Executive, Mark Templeton - PM
Ron Marson - Project Engineer, Tricia Reed - Design Engineer
Mike Butenschoen - Foreman

Nintendo of America Totem Lake Operations Center

- 126,662 ft², 2-story Office & Distribution Warehouse
- Existing building retrofit, add to and modify existing mechanical systems to accommodate load in a secure facility

Team Members:

- GC - GLY Construction
- Architect - Lance Mueller & Associates
- HVAC - PSF Mechanical, Inc.
- Electrical - Holmes Electric

HVAC Systems:

- Conventional packaged rooftop with air-side economizers
- Programmable set-back controls with adaptive optimal start

Unique Design Challenges:

- Fast track schedule demanded quick turnaround on procurement, immediate submission for permitting

**Team:**

Robert Willis - Account Executive, Mike Gifford - PM
Randy Stabnow - Engineer, Mike Butenschoen - Foreman

T-Mobile EIT

- Two Office Buildings, 90,000 ft² each
- Bothell, WA

Team Members:

- Owner - T-Mobile
- Architect - Gensler
- GC - Foushee
- HVAC - PSF Mechanical, Inc.

HVAC Systems:

- Full build-out of office spaces in two shell office buildings
- Two existing Trane VAV rooftop units, 110 tons each per building
- Nailor VAV boxes, series fan powered VAV boxes throughout
- Large Sanyo variable refrigerant flow system to provide 24/7 cooling in two MDF and eight IDF rooms
- Alerton DDC control system

Turbocor Compressor Retrofit – a Green Machine!



by Patrick Mulhall, Account Executive Service Department

The Turbocor Compressor is an oil-free centrifugal compressor. It utilizes magnetic bearing technology, so there is no need for conventional bearings, and therefore, oil! The result is a centrifugal compressor with a lower energy usage per ton of delivered capacity. Oil is used to lubricate the compressor, but the oil does not stay in the compressor no matter how hard we try to keep it there. It migrates to the condenser coil, evaporator coil, and eventually back to the compressor. However, through its journey it coats the walls of the evaporator and condenser coils, reducing the heat transfer. Eliminating the oil and resulting system contamination can improve the delivered capacity of the cooling system.

Over the years air conditioning systems have used various refrigerants. CFCs, or chlorofluorocarbons, were very efficient refrigerants but are considered

detrimental to the environment. The most common CFCs were known as R-11 and R-12. These were phased out of production by January 1, 1996, and replaced with hydro chlorofluorocarbons (HCFCs); refrigerants which were less efficient but were less harmful for the environment. The common replacement interim refrigerants were R-123 and R-22. These refrigerants are now also being phased out, and replaced with safer (but slightly less efficient) refrigerants. R-22 will be phased out over the next 10 years, and R-123 will be phased out after that time. There are many R-22 refrigeration systems still in use and new R-22 HVAC equipment was still manufactured until about a year ago.

Due to its higher efficiency, there are many applications for the Turbocor compressor to replace existing centrifugal, screw and reciprocating compressors. However, many of these

existing systems utilize R-22 refrigerant. Whenever possible, the systems should be upgraded to R134a, which is a non-ozone depleting refrigerant. When a refrigerant conversion is done with the Turbocor compressor replacement the loss of efficiency due to the refrigerant conversion may be offset by eliminating oil from the system, resulting in no real net loss and possibly an increase in delivered capacity. You can increase energy efficiency and “go green” at the same time! As a bonus, PSE, Snohomish PUD and Seattle City Light may provide Energy Grants of up to 70% of the project cost for Turbocor energy retrofits.

PSF EMPLOYEE SPOTLIGHT

The Dream Team at Redmond Software Company, Building 111

Scott Wallace - Project Manager, Pete Fasano - Foreman,
Ron Cummins - Project Engineer, Nate Wilcox - Account Executive

Scott, Pete, Ron and Nate have a combined 95 plus years in the commercial mechanical design build industry. Each brings with them extensive experience in hi tech, bio tech and healthcare, and high-rise buildings. This experience is evidenced by their collaborative attitudes, ability to communicate and attention to detail bringing another project for this client to a successful close. Here are a few of the comments we received about our Dream Team:

- “It was a great team and I would use all of them again in a minute.”

- “Pete always made sure things were done right and kept a great attitude.”
- “Scott, Nate and Ron always responded quickly. They always followed up to make sure we understood their comments.”
- “As in the past PSF pushed the schedule and as a GC I love that.”
- “I know they looked at several units and evaluated them before making a decision. They kept [the client] in the decision loop.”
- “Everyone of PSF’s team was a great team player.”

- Regarding jobsite organization & appearance, “Always kept clean and nice.”

Thank you Scott, Pete, Ron and Nate for continuing PSF’s tradition of Successful Projects, Teamwork, Innovation and Integrity.



Meet the People That Make Things Happen



Bob Moon, Service Manager, is a graduate mechanical engineer from California State Polytechnic University in San Luis Obispo, CA and has worked within the HVAC industry of Seattle for more than 30 years. At PSF, his focus is renovation and modernization of HVAC systems within the existing building marketplace.



Kaisha Spicer, Account Executive Service Department, is the latest addition to the department and has over 10 years experience and a bachelor degree in marketing. Kaisha's focus is on service and preventive maintenance agreements. Customers are immediately taken in by her warm personality and can-do attitude.



Pat Mulhall, Account Executive has a degree in electronic engineering and has worked in the HVAC industry for over 40 years developing technical solutions for HVAC systems. Pat's focus is on energy and mechanical retrofits to improve HVAC system performance and reduce energy consumption. He is our go-to guy for the Turbocor oil-free compressor.



Pam Wallace, Service Dispatcher, has over 18 years of experience administrating and coordinating tenant improvement and service projects. Our customers appreciate Pam's attention to detail and reliable follow-through.



Kurt Hilderbrand, Account Executive Service Department, has worked in the HVAC industry since 1975. His background includes sales of preventive maintenance agreements, equipment retrofits, energy retrofits and design/build projects.

MAILBAG

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For more information or key contacts list, visit our web site at:
www.psfmechanical.com



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