Vacuum systems are part of the vital “heart and lungs” of your practice. Vacuums allow the doctor and staff to keep the oral cavity clean to work in. Having a well-designed and functioning vacuum system also provides comfort to the patient because saliva and other liquids can easily be evacuated from their mouth during procedures. If your vacuum system goes down, your practice cannot function. Below, we’ve put together a quick guide to selecting the right vacuum for your practice!

### MECHANICAL ROOMS

**Dry Vac**

**Advantages**
- Reduction or elimination of water use for suction, which decreases the ongoing cost of the unit dramatically (water bill reduction)
- Variable speed motor allows a more consistent vacuum flow for multiple users
- More efficient electrical use reduces electrical utility costs
- Less maintenance required
- If motor fails, system can be connected to shop vacuum to provide emergency suction until a TechEdge service technician arrives to fix

**Disadvantages**
- Initial cost of equipment is significantly higher than a wet vacuum system
- Dry vacuum unit can be loud, requiring its installation location to be farther away from the treatment rooms
- Larger square footage requirement in mechanical room due to size of equipment and requirement for venting/cooling
- Cost to install second motor for redundancy significantly higher than wet options

**Wet Vac**

**Advantages**
- Initial investment cost is significantly less than a dry system
- Savings in cost of equipment when installing redundant second motor versus the dry system
- Requires less square footage in mechanical room
- Typically quieter than a dry system, which provides more flexibility for placement of system in office

**Disadvantages**
- Increased water utility bill due to usage of water for suction
- Inconsistent suction with multiple users
- Potential for higher maintenance costs due to recirculation systems that can stress vacuum motors
- If there is only one motor and it fails, system is not functional until motor is fixed
THINGS TO CONSIDER ABOUT YOUR VACUUM SYSTEM:

How important is self-diagnosing equipment?
- Some vacuum systems today have an Ethernet connection that allows the manufacturer and/or service technician to diagnose the issue remotely, potentially providing a more efficient and timely repair of your equipment.

Should my vacuum system be plumbed below slab or overhead?
- Vacuum systems can be installed both below slab or overhead, but the most common and recommended method is to install below slab (underground). Installing a system overhead typically requires a unit to be sized larger than usual to provide the desired suction, which will increase your initial equipment investment. An overhead system also presents aesthetic issues as the sound of the suction is easily heard through walls and ceiling.

Is my vacuum system properly sized for my practice now and in the future?
- Each individual manufacturer specifies different user counts for their products. To make sure you have the right unit for your practice, contact a Patterson Equipment Specialist.

VACUUM SIZING “CHEAT SHEET”
- Dental vacuum pumps are sized according to the number of users (not the number of operatories) in a dental practice.
  - DDS is 1 user
  - Hygienist is 0.5 user
  - Plumbed Med Gas is 0.5 user

- Example: A 7 user system would handle 7 operatories all pulling suction at the same time. Typically in a 7 op practice, however, you may only be running suction in 4 or 5 ops. The size should generally be based on the max number of hygienists and doctors who would be working at one time. If the max is exceeded, the system will not “fail” but the suction will not be as strong in the operatories.

Please Note: This is a general guideline only. Many factors must be taken into account for appropriate vacuum sizing including practice expansion plans, location of utility room and trunk line construction, and other project specifics. Sizing a vacuum pump is subject to intended use and clinical habitats. A Patterson Equipment Specialist should ALWAYS be consulted and will conduct a site specific needs assessment and recommend an appropriate solution.

Dental vacuum pumps are sized according to the number of users (not the number of operatories) in a dental practice.

For more information on choosing the right vacuum system for your practice, please contact your local Patterson Equipment Specialist or DesignEDGE team member, visit pattersondental.com or call 800.873.7683 today!