



Where does the Vacuum Network in my laboratory come from?

“Straight out of the wall” – may be a common answer. No-one is concerned about it, so long as everything is working fine and all the required connections and valves are available. Whether there is vacuum or not, you probably don't even notice until there's none available. Vacuum technology often goes hand in hand with typical laboratory applications like evaporation, drying or filtration – however it is indispensable! There are several possibilities of providing vacuum in the laboratory – each with their own strengths and weaknesses:

Single User Vacuum Pump Having just one vacuum pump on the laboratory bench, you certainly won't ask yourself where the required vacuum comes from. A chemically resistant vacuum pump exclusively for your own application – this is the ideal individual solution offering best working conditions. Chemistry diaphragm pumps with exhaust vapour condenser for solvent recovery and separator for pump protection from condensate should definitely be the first choice. VACUUBRAND's VARIO diaphragm pumps with variable running speed and further setting and control options offer further advantages such as the “always correct vacuum”, energy saving and remote control options.

Central Vacuum Things look different if a vacuum tubing needs to be connected to a wall-mounted hose nozzle and a valve needs to be opened. In this case the vacuum supply comes either from a central vacuum or a local vacuum network. The laboratory user usually has little influence on having adequate ultimate vacuum or perfectly suitable flow rates for his application - despite oversized vacuum pumps typically being used in central vacuum systems. Short-time ventilation of different applications e.g. can negatively influence the performance of the entire centrally fed laboratory vacuum. Future modifications become difficult due to the lack of flexibility of fixed piping installations. Maintenance of the vacuum generator or the piping system can affect all users at the same time. Unwanted mixtures of vapors and solvents from several laboratories may develop inside the long pipelines. All these factors should be considered – as well as the high operating and maintenance costs.

VACUU.LAN® Vacuum Network for Laboratories A local vacuum network represents the perfect compromise between a single user pump and a centralized vacuum. Several applications can be operated at the same time. Installation is simple, fast and requires hardly any tools. Non-return-valves inside the single outlet modules diminish the risk of interference between parallel applications. The network-pump in the under bench cabinet works virtually noiselessly and offers - depending on the model – various conveniences: no permanent supervision required, continuous operation around the clock. Vacuum is generated only if required (“vacuum on demand”).

VACUU.LAN, VACUUBRAND's local vacuum network, is continuously evolving together with its customers to adapt to modern laboratory facility systems. The aim is a steady improvement of the vacuum supply in education, research and industry laboratories. The idea is both efficient and simple: Several laboratory workstations are using one efficient and chemical resistant diaphragm pump. Each workstation gets vacuum through a VACUU.LAN module whose integrated non-return-valve considerably decreases reciprocal influence with high efficacy. Chemical resistant PTFE-tubings and tubing connectors link the network server pump to the workstation modules. Such VACUU.LAN networks can ultimately achieve vacuum levels of down to 2 mbar. The wide variety of available connecting modules offers individual and space-saving solutions for all common vacuum applications. VACUU.LAN is highly flexible and can either be planned and integrated into new yet to be installed laboratory furniture or retrofitted to already existing laboratories. The pump's automatic network control provides vacuum on demand, thus providing both environmental and budgetary savings. A wide range of accessories such as coolant-free post-condensation, liquid level monitoring of collection flasks, and interfaces for remote monitoring of pump operation additionally increase the process safety.

Read more of this article at: SelectScience.net

To find out more about Vacuum Networks by Vacuubrand,

Please contact our team of Vacuum experts by

Email: vacuum@johnmorris.com.au

Free call AUS. 1800 251 799 and NZ 0800 651 700

NEW WEBSITE: www.johnmorrisgroup.com/AU/Vacuum

Contacts

Daniel Kyle

02 9496 4200

[mailto: danielk@johnmorris.com.au](mailto:danielk@johnmorris.com.au)