Technical Specification

ModuleVide™ Critical Care Backup Vacuum System

VACUUM PUMPS AND SYSTEMS
POMPES ET SYSTÈMES À VIDE

1. ModuleVide Medical Module

1.1. General Performance.

1.1.1 Supply one ModuleVide™ Critical Care Backup Vacuum System capable of providing a capacity [____] SCFM @ 20"Hg vacuum, including one Busch Mink series vacuum pump and one bacterial filter.

1.2 Vacuum Pump.

1.2.1 Each vacuum pump shall be a Busch Mink series dry-running rotary lobe vacuum pump model (MV0040C, MV0060C), shall have a capacity of [____] SCFM at a vacuum level of 20 "Hg (sea level).

1.2.2 Each pump shall have a guaranteed oil-free, non-contacting, non-wearing operation.

1.2.3 Each vacuum pump shall be driven by a directly mounted internal synchronous DC motor of (1.34HP (1 kW), 2.3HP (1.7 kW)).

1.2.4 Each vacuum pump shall have an integral variable frequency drive allowing an operation on a 220-240V/1ph/60Hz or 190-240V/3ph/60 Hz power supply. Belt drives shall not be permitted.

1.2.5 Each pump shall be air-cooled and have absolutely no water requirements.

1.2.6 Each pump shall have a guaranteed end (ultimate) vacuum of 28.7" Hg on a continuous run basis, based on a barometric pressure of 29.92" Hg.

1.2.7 Each pump shall be equipped with an integral reactive-type discharge silencer. To prevent the risk of plugging the discharge piping with absorptive material (foam), absorptive silencers shall not be acceptable.

1.2.8 Each pump shall have a dry contact that can be connected to the Zone alarm.

1.2.9 Each pump shall be equipped with:

- One anti-suck-back valve mounted at the pump inlet.

1.2.10 All pumps shall be mounted on vibration isolators.

1.3 Connectivity.

1.3.1 Each vacuum pump is fitted with a frequency converter and synchronous drive train as standard equipment. The frequency converter is set by default to the maximum speed, and can be switched by the power supply.

1.3.2 The vacuum pump shall be capable of receiving external control commands via digital or analog inputs. The control settings of the vacuum pump shall be capable of being adjusted to match the process by the use of a manual control unit, a parameter configuration kit or a fieldbus module.

1.3.3 The manual control unit shall be capable to set the speed of the motor and allowing all frequency converter functions to be displayed and altered.

1.3.4 The vacuum pump shall be capable of being controlled by PC using the parameter configuration.

1.3.5 Various fieldbus modules are available to connect Mink MV vacuum pumps to a process control system.

1.4 Medical Vacuum Filter.

1.4.1 One externally and internally epoxy coated medical vacuum filter model (NMV 0070, NMV 0125). The medical vacuum filter shall meet the requirements of the D.H.S.S. for infectious disease units (HTM 2022) with complete bacteria removal to 0.0001%

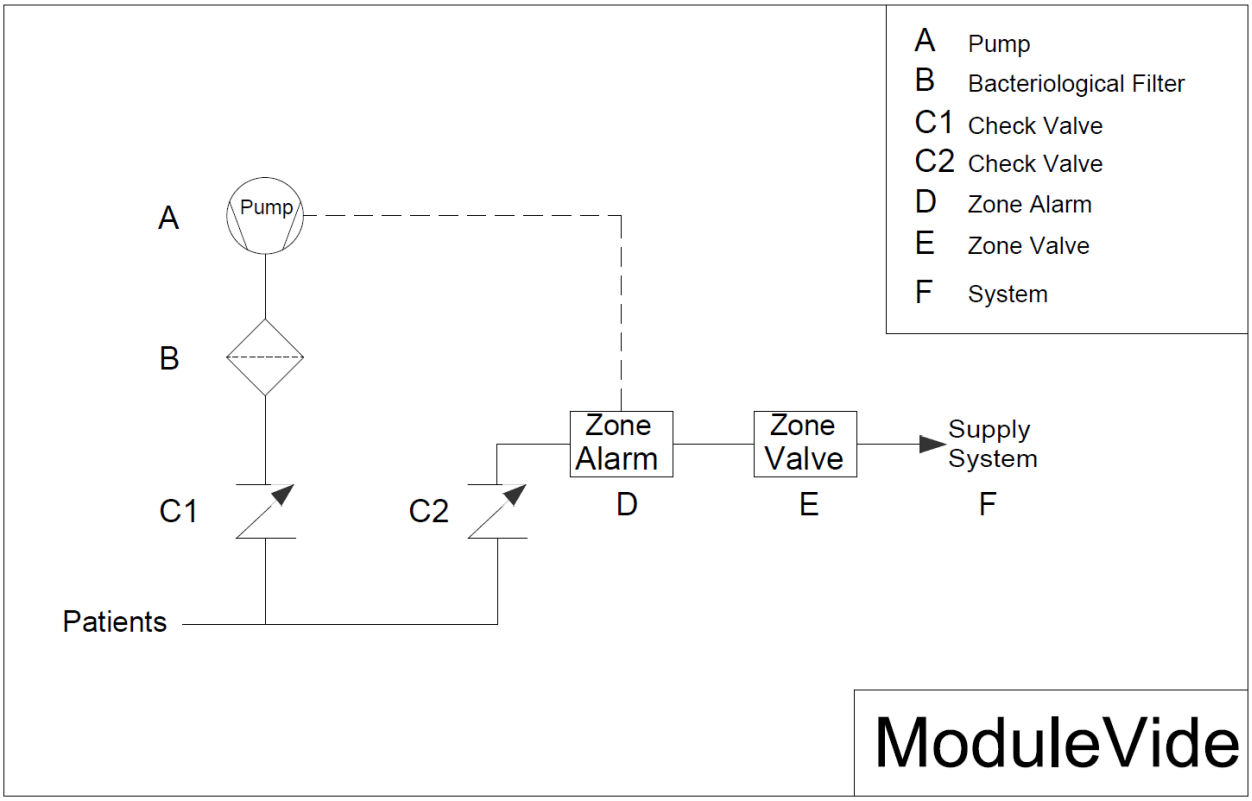
penetration, as tested to BS.3928 efficiency. Medical filter must come equipped with removable sterilisable drain flask, direct mounting differential pressure indicator and its design and construction shall be Lloyds approved.

1.5 Interconnection to pipeline.

1.5.1 The Critical Care Backup Vacuum pump shall be connected to the pipeline through a dual check valve assembly in both normal and emergency conditions.

1.6 Shipping

1.6.1 Vacuum pump and bacterial filter shall be shipped loose for site installation.



ModuleVide Module Technical Specifications

Mink pump model	SCFM @ 20 "Hg (Per pump)	Maximum continuous vacuum "Hg	Horsepower (Per pump)	Bacterial Filter Model
MV-0040	**7.3**	28.7	1.7	NMV 0070
MV-0060	**11.2**	28.7	2.3	NMV 0125