

# **11. VMAX SYSTEMS**

vacuum pump system VMX0553K

# Why more and more customers are switching to the View system:

- ✓ The only system on the market with a full 3-year warranty!
- ✓ Patented, high-efficiency DX-5 separator eliminates oil carry-over concerns.
- ✓ Rugged, high-quality, industrial system, offering years of trouble free operation.
- ✓ Extended-life seal-fluid is not used as a lubricant. Change interval is not critical, resulting in a minimum of 10,000 hours of continuous operation.
- ✓ Direct drive at low speed (1750RPM) eliminates the use of V-belts, resulting in very low maintenance and zero downtime.
- ✓ Extremely low operating noise level makes this system desirable in today's workplace.
- ✓ Continuous operation over the full vacuum range without overheating.
- Carry-over of soft solids and/or minimal amounts of liquid does not cause damage to the internal parts of the pump.
- **Electrical control panel** is standard.
- ✓ Air-cooled design is standard with water-cooling available at no extra charge.
- Now available with optional Variable
  Frequency Drive resulting in lower power consumption.

Performa	nce Characteristics	
Nominal c	apacity:	550CFM
Motor:	50Hz/22kW/30HP - 6	0Hz/30kW/40HP
Speed:		1450/1750RPM
Maximum	vacuum:	29"Hg/982mbar
Weight (a	pproximate):	841Kg/1850Lbs
Maximum	gas inlet temperature:	212°F/100°C
Maximum	noise level (at 3 feet):	78dBA
Oil capaci	ty (approximate):	64Ltr/17 GAL
Performar	nce based on atmosph	eric pressure
equal to 2	9.92"Hg - 1013mbarA	





10.00 +

56.00

76.00

66.32

Information contained in this document is for reference only. Subject to change without notice.

65.74

62.92

-1.3.25

# **BENEFITS OF SUGGESTED ADDERS FOR WOODWORKING**

### **VACUUM RELIEF VALVE**

Protects pump from reaching too deep of a vacuum, resulting in cavitating and/or hydraulic knock, potentially damaging the pump overtime.

## **EXHAUST DRIP LEG**

Piped to the discharge of the system to help scavenge oil carryover back into unit.

# **INLET FILTER**

Located on the inlet of the vacuum pump (typically 5 microns) to prevent particulate from getting into the pump air stream and/or seal fluid.



## **SPIN-ON OIL FILTER**

Prevents foreign particulate that enters the pump from causing a blockage or restriction in the heat exhanger, resulting in overheating issues.

## **OIL-SEALED LIQUID RING VACUUM PUMP SYSTEMS**



# **ControlDEK<sup>™</sup> PLC**

Introducing the **ControlDEK<sup>™</sup> PLC** from DEKKER Vacuum Technologies. The ControlDEK PLC is an easy to use, yet highly advanced, touch screen controller. The ControlDEK PLC is available across all of DEKKER product lines, and is designed both for Standard or Custom applications. The ControlDEK PLC offers at a glance access to important system information and controls.

/acuur <b>24.8</b>	n Level inHg	Fill Oi Min T	ter Beckpressure il Temperature imum Run Timer 'otal Run Time	1.2 ps 197.6 7:38 n 427 h	sig °F min hrs
Auto	Temperature N	ormal	Backpressure No	mal ME	NU
ead	Fluid Level No	mal	Running		INU E

Process Data Screen shows important system information and controls at a glance.

The ControlDEK PLC offers many advanced features and advantages over previous DEKKER control systems.

#### Features and Advantages include:

- Single standard user-friendly interface across DEKKER'S full product line and systems
- · Software updates that can easily be applied in the field
- Enhanced monitoring capabilities with optional Modbus communication module
- Optional SMS and Email Functionality
- Trend, Charts and Data Logging



The Setup Menu Screen utilizes large touch buttons and a simple to use interface.

#### The ControlDEK PLC Data Logging features include:

- Interval Logging or Events Only Logging
- User adjustable Logging Interval
- Log to Excel<sup>®</sup> File (.csv file format)
- Logs stored on removable MicroSD card
- Data is logged for only one Panel
- · Multi-Systems will have a log for each panel
- I Minute Interval = I + Year of Data
- 5 Minute Interval = 20+ Years of Data

Dekker Controller	ControlDEK		
VMax Only	All Dekker Systems		
4-Line LCD	Modern 4.3" Color Touch Screen		
Non-Intuitive User Interface	User Friendly Touch Screen		
Modbus and other communication standards not available	Optional Modbus (Serial or Ethernet)		
	Optional SMS or Email Functionality		
No Charts, Trending, or Data Logging	Trending, Charts, and Data Logging standard		

#### Dekker Controller/ ControlDEK Feature Comparison





#### **ControlDEK Data Logging**

The Data Log for the ControlDEK PLC can be set for **Events Only** or **Interval Logging**. Interval Logging writes a line of data at a user set interval. In addition, interval logging will write a line of data for any of the event triggers. Events Only logging will write data only at Event Triggers. Events Only logging is often times easier to read, but may not offer enough information to determine why a fault occurred. As an example: the Events Only log shows that a High Temperature Warning and High Temperature Alarm occurred, but does not show the information leading up to those faults. Interval logs show all of this data.

#### Example of an Events Only Data Log File

Date	Time	Hand/ Auto	Run Status	Vacuum Level	Back- pressure	Oil Temp	Total Run Hours	Event
9/25/16	15:12:37	Hand	Stopped	19.9	0	71.9	97	Local Start
9/25/16	15:32:47	Auto	Running	19.9	0	71.9	98	State Change Hand Auto Switch
9/25/16	15:33:04	Hand	Running	19.9	0	71.9	98	State Change Hand Auto Switch
9/25/16	15:38:44	Hand	Running	19.9	0	71.9	98	Local Stop
9/25/16	15:43:12	Hand	Stopped	19.9	0	71.9	98	Local Start
9/25/16	16:14:26	Hand	Running	19.9	0	127.4	98	High Temperature Warning
9/25/16	16:52:39	Hand	Running	19.9	0	123.6	99	High Temperature Warning Cleared
9/25/16	17:13:56	Hand	Running	19.9	0	125.9	99	High Temperature Warning
9/25/16	17:31:22	Hand	Running	19.9	0	150.5	100	High Temperature Alarm
9/25/16	18:08:42	Hand	Stopped	19.9	0	106.5	100	High Temperature Alarm Cleared
9/25/16	18:08:42	Hand	Stopped	19.9	0	106.5	100	Fault Reset Button Actuated
9/25/16	18:14:48	Hand	Stopped	19.9	0	90.3	100	Local Start

#### Data Logged

- Date
- Time
- Hand/Auto Status

#### **Event Triggers**

- Hand/Auto State Change
- Local Start
- Remote Start
- Local Stop
- Remote Stop
- Fault Reset Button Actuated
- High Temperature Warning

- Run Status
- Vacuum Level
- Backpressure

High Temperature Warning Cleared

• High Temperature Alarm Cleared

• Backpressure Warning Cleared

• Backpressure Alarm Cleared

• High Temperature Alarm

Backpressure Warning

• Backpressure Alarm

- Oil Temp
- Total Run Hours
- Event
- Contactor Fault/VFD Run Fail
- High Fluid Level
- Low Fluid Level
- Fluid Level Normal
- (return from high/low status)
- Contactor Overload/VFD Fault
- Overload Reset/VFD Fault Reset

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#### **GOLD STANDARD SUPPORT**

Your Knowledge-Backed Guarantee. Need help sizing a vacuum pump? Having application problems? With over 100 years of combined experience, we've made it our business to know your needs as well as our systems capabilities.With DEKKER, you get a team of vacuum experts dedicated to helping you resolve system challenges, streamline processes, and optimize results.

Maintenance, service and repair so you keep operating at maximum efficiency.





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