J&M Fluidics
Winery
Chillers

Models: **2.1 HP & 3.5 HP** *Single Circuit*

Standard Features:
2.1, 3.5, 5.5, 6, 8,10, & 13HP (Single Circuit Models)

- **ETL listed** to UL1995 & CAN/CSA C22.2 No. 236-11, 4th edition, 10/14/2011
- **Single point power connection**
- **Pentra Microsmart, Programmable Logic Controller (PLC) with easy to use HMI touch screen display**
- **Door Mounted HMI with weather proof cover**
- **5 Port Ethernet Switch** (Chiller remote network access control and Modbus capability)
- **Remote SMTP services for email alerts**
- **STAINLESS STEEL** Tank
- **STAINLESS STEEL Process Pump**
- **Pump Isolation Valves**
- **Fused, STAINLESS STEEL evaporator pump**
- **STAINLESS STEEL**, brazed plate evaporator
- **Scroll** compressor with crankcase heater
- **Suction accumulator**
- **Fluid flow switch**
- **24V control transformer**
- Direct drive condenser fan motor
- Rust resistant, high CFM, aluminum condenser fan blade
- Condenser(s): copper tube/aluminum fin
- Compressor motor contactor
- Condenser motor and control circuit fusing

- **Painted (Powder Coat), galvanized sheet metal cabinet**
- 1/2" insulation on all fluid and Low pressure refrigerant lines
- Liquid line drier, sight glass, solenoid,TXV
- **Complete refrigerant charge from factory**
- **Factory Performance Test prior to shipment**

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User-Friendly Touch Screen Display (HMI) on ALL J&M Winery Chiller Models

Chiller System	Winery Model	Capacity		Glycol Pump	Tank Capacity (Gallons)	Dimensions L x W x H (Inches)	Ship Weight (LBS)	Operating Weight (LBS)	Electrical Data			Glycol Fitting Connections Sizes
		28º F Glycol 90º Ambient	33º F Glycol 90º Ambient						Voltage / Phase / HZ	MCA	MOP	
2.1 HP	PZATB2.1SE6	15,700	17,150	1 HP	20 Gallons	36 x 34 x 68	685	750	208-230 / 1 / 60	32.2	45	1 1/4"
	PZATB2.1SF6								208-230 / 3 / 60	21.2	30	
	PZATB2.1SH6								460 / 3 / 60	10.1	15	
	PZATB2.1SI6								575 / 3 / 60	8.7	15	
3.5 HP	PZATB3.5SE6	27,000	29,500				690	755	208-230 / 1 / 60	41.1	60	
	PZATB3.5SF6								208-230 / 3 / 60	26.6	40	
	PZATB3.5SH6								460 / 3 / 60	11.9	15	
	PZATB3.5SI6								575 /3 / 60	11.4	15	

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Reverse Side

All J&M Winery Chillers come Standard with our Pentra Microsmart, Programmable Logic Controller (PLC) and easy to use custom software.

Best-In-Class PLC available for ALL J&M production chiller models.
Factory installed and programmed into your next **J&M Winery Chiller.** The **Pentra PLC** will seamlessly interface with our HMI touch screen.

Pentra PLC Key features include:

- **CE, UL Listed**
- **Highly Accurate & Fast Performance**
- **Embedded Ethernet Port**
- **Modbus (Slave) TCP, RTU and ASCII** for integration with most Building Automation Systems (BAS)

- *Optional BacNet and LONWORKS communication protocols via third party gateway hardware*
- *Expandable I/O, ideal for custom chiller control projects*
- *I/O status indicators on Pentra and I/O modules for easy diagnostics*

Chiller System	Winery Model	Capacity		Glycol Pump	Tank Capacity (Gallons)	Dimensions L x W x H (Inches)	Ship Weight (LBS)	Operating Weight (LBS)	Electrical Data			Glycol Fitting Connections Sizes
		28º F Glycol 90º Ambient	33º F Glycol 90º Ambient						Voltage / Phase / HZ	MCA	MOP	
5.5 HP	PZATB5.5SE6	44,500	48,600						208-230 / 1 / 60	50	70	
6 HP	PZATB6SF6	46,200	50,500	1 HP	50 Gallons	46 x 34 x 70	800	1085	208-230 / 3 / 60	34.5	50	1 1/4"
	PZATB6SH6								460 / 3 / 60	15.5	20	
	PZATB6SI6								575 / 3 / 60	13.2	20	
8 HP	PZATB8SF6	60,500	66,100				1200	1500	208-230 / 3 / 60	48.4	70	
	PZATB8SH6								460 / 3 / 60	24.5	35	
	PZATB8SI6					75 x 34 x 75			575 / 3 / 60	22	30	
10 HP	PZATB10SF6	79,900	89,200				1300	1740	208-230 / 3 / 60	65	102	1 1/2"
	PZATB10SH6								460 / 3 / 60	30.5	45	
	PZATB10SI6			2 HP	80 Gallons				575 / 3 / 60	22.2	30	
13 HP	PZATB13SF6	97,400	109,000				1400	1840	208-230 / 3 / 60	77.8	125	
	PZATB13SH6								460 / 3 / 60	37.6	60	
	PZATB13SI6								575 / 3 / 60	29	45	

J&M Fluidics
Winery
Chillers

Standard Features:
10, 12, 16, 20, & 26HP (Dual Circuit Models)

- **ETL listed** to UL1995 & CAN/CSA C22.2 No. 236-11, 4th edition, 10/14/2011
- **Single point power connection**
- **Pentra Microsmart, Programmable Logic Controller (PLC) with easy to use HMI touch screen display**
- **Door Mounted HMI with weather proof cover**
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- **Remote SMTP services for email alerts**
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- **Fluid flow switch**
- **24V control transformer**
- Direct drive condenser fan motor
- Rust resistant, high CFM, aluminum condenser fan blade
- Condenser(s): copper tube/aluminum fin
- Compressor motor contactor
- Condenser motor and control circuit fusing

Models: **10 HP & 12 HP** *Dual Circuit*

Reverse Side

User-Friendly Touch Screen Display (HMI) on ALL J&M Winery Chiller Models

- **Painted (Powder Coat), galvanized sheet metal cabinet**
- 1/2" insulation on all fluid and Low pressure refrigerant lines
- Liquid line drier, sight glass, solenoid, TXV
- Complete refrigerant charge from factory
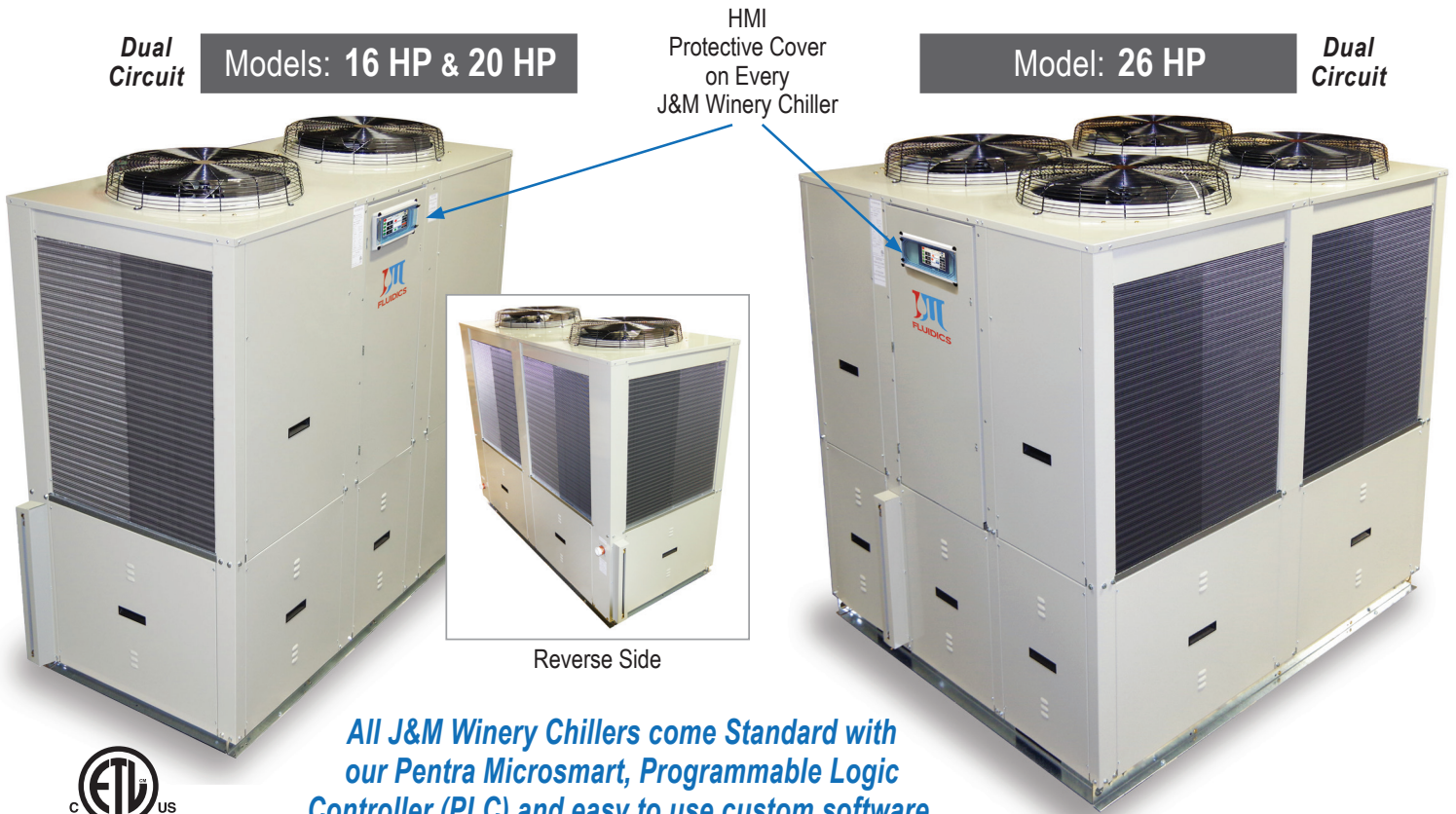- **Factory Performance Test prior to shipment**

Chiller System	Winery Model	Capacity		Glycol Pump	Tank Capacity (Gallons)	Dimensions L x W x H (Inches)	Ship Weight (LBS)	Operating Weight (LBS)	Electrical Data			Glycol Fitting Connections Sizes
		28º F Glycol 90º Ambient	33º F Glycol 90º Ambient						Voltage / Phase / HZ	MCA	MOP	
10 HP	PZATB10DE6	76,200	85,000	1.5 HP	80 Gallons	75 x 34 x 75	1375	1805	208-230 / 1 / 60	79.7	100	1 1/2"
	PZATB10DF6								208-230 / 3 / 60	61.7	80	
	PZATB10DH6								460 / 3 / 60	26.8	35	
	PZATB10DI6								575 / 3 / 60	21.2	25	
12 HP	PZATB12DF6	90,400	101,000	3 HP			1475	1905	208-230 / 3 / 60	66.3	80	
	PZATB12DH6								460 / 3 / 60	29.5	35	
	PZATB12DI6								575 / 3 / 60	22.8	25	

Dual Circuit — Models: **16 HP & 20 HP**

HMI Protective Cover on Every J&M Winery Chiller

Model: **26 HP** — **Dual Circuit**

Reverse Side

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- *Modbus (Slave) TCP, RTU and ASCII for integration with most Building Automation Systems (BAS)*

- *Optional BacNet and LONWORKS communication protocols via third party gateway hardware*
- *Expandable I/O, ideal for custom chiller control projects*
- *I/O status indicators on Pentra and I/O modules for easy diagnostics*

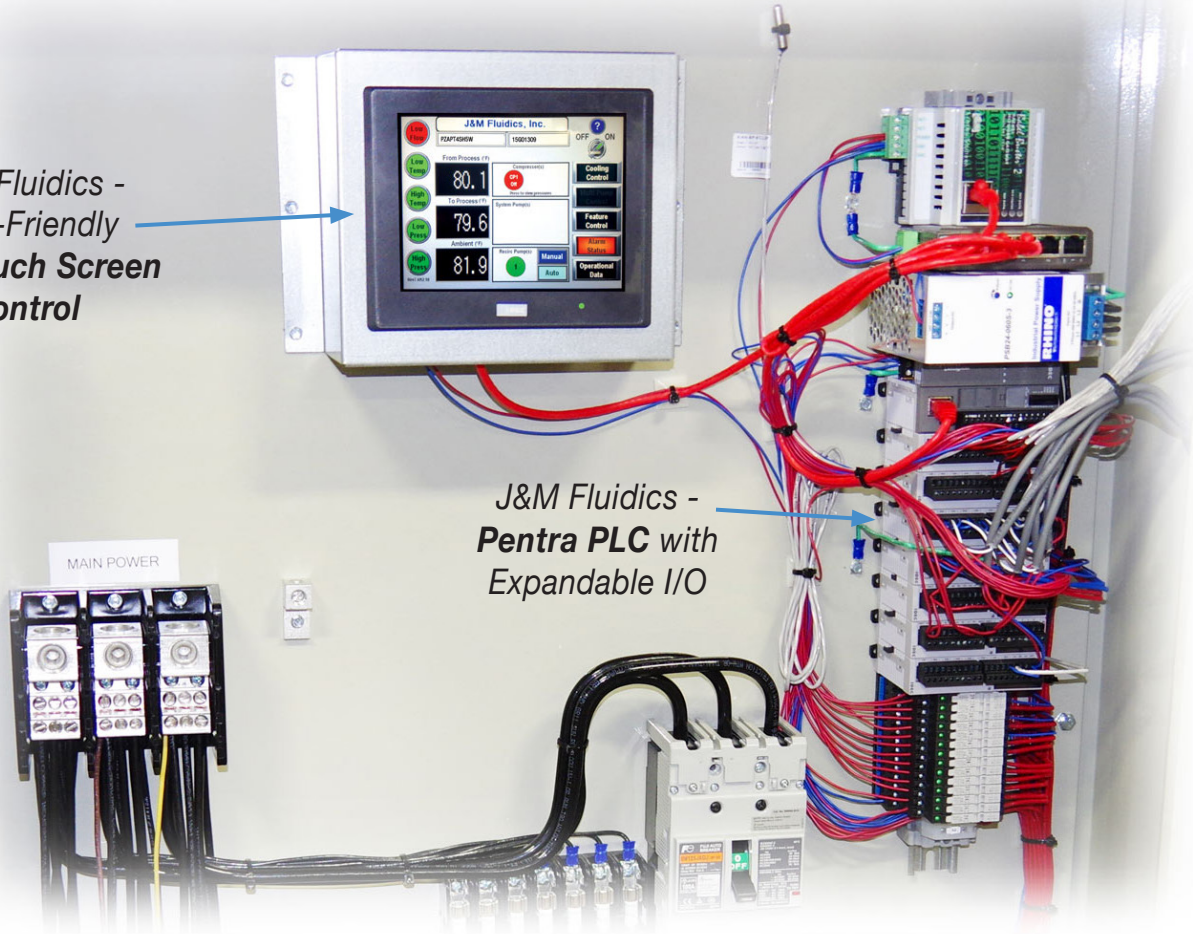| Chiller System	Winery Model	Capacity		Glycol Pump	Tank Capacity (Gallons)	Dimensions L x W x H (Inches)	Ship Weight (LBS)	Operating Weight (LBS)	Electrical Data			Glycol Fitting Connections Sizes
		28° F Glycol 90° Ambient	33° F Glycol 90° Ambient						Voltage / Phase / HZ	MCA	MOP	
16 HP	PZATB16DF6	118,400	122,200	3 HP	120 Gallons	85 x 40 x 75	1895	2700	208-230 / 3 / 60	83	110	1 1/2"
	PZATB16DH6								460 / 3 / 60	42.1	50	
	PZATB16DI6								575 / 3 / 60	32.7	40	
20 HP	PZATB20DF6	159,800	178,400				1985	2770	208-230 / 3 / 60	104.6	125	
	PZATB20DH6								460 / 3 / 60	49.3	60	
	PZATB20DI6								575 / 3 / 60	33.6	45	
26 HP	PZATB26DF6	194,800	218,000			75 x 65 x 77	2500	3210	208-230 / 3 / 60	139.1	175	2"
	PZATB26DH6								460 / 3 / 60	67.1	90	
	PZATB26DI6								575 / 3 / 60	51.9	60	

Our Controls Are What Set Us Apart...
The J&M - Pentra Microsmart, Programmable Logic Controller (PLC)
Exceptional Control & Reliability for Your Wine Making Process!

J&M Fluidics - User-Friendly **HMI Touch Screen Control**

J&M Fluidics - **Pentra PLC** *with Expandable I/O*

HMI Touch Screen Chiller Control Features:

- *USB update slot for IN-PLACE HMI and PLC software updates available from jmchillers.com*
- *Free Software Upgrades*
- *CE, UL Listed*
- *Monitor / Control your chiller from anywhere**
- *4gb SD card in slot for data storage - Standard*

- *Ultra bright display screen with auto screen saver*
- *Real-time Pressure and Temperature readings*
- *Automatic COMPRESSOR Lag/Lead with FIVE operational modes*
- *Automatic SYSTEM PUMP Lag/Lead with FIVE operational modes*
- *Factory configured for ALL J&M's chiller options*

*Some network configuration required.

The J&M - Pentra Microsmart, Programable Logic Controller (PLC) Features:
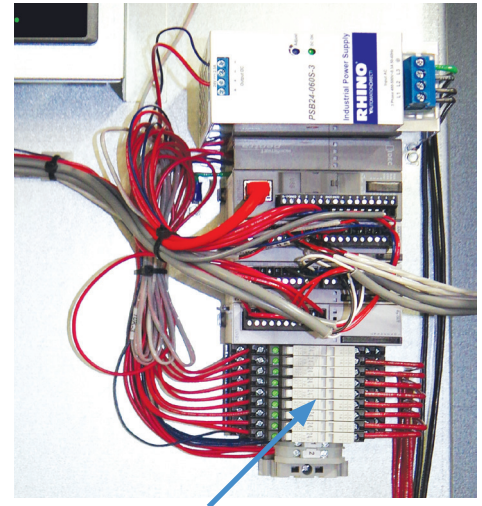
PLC Controller

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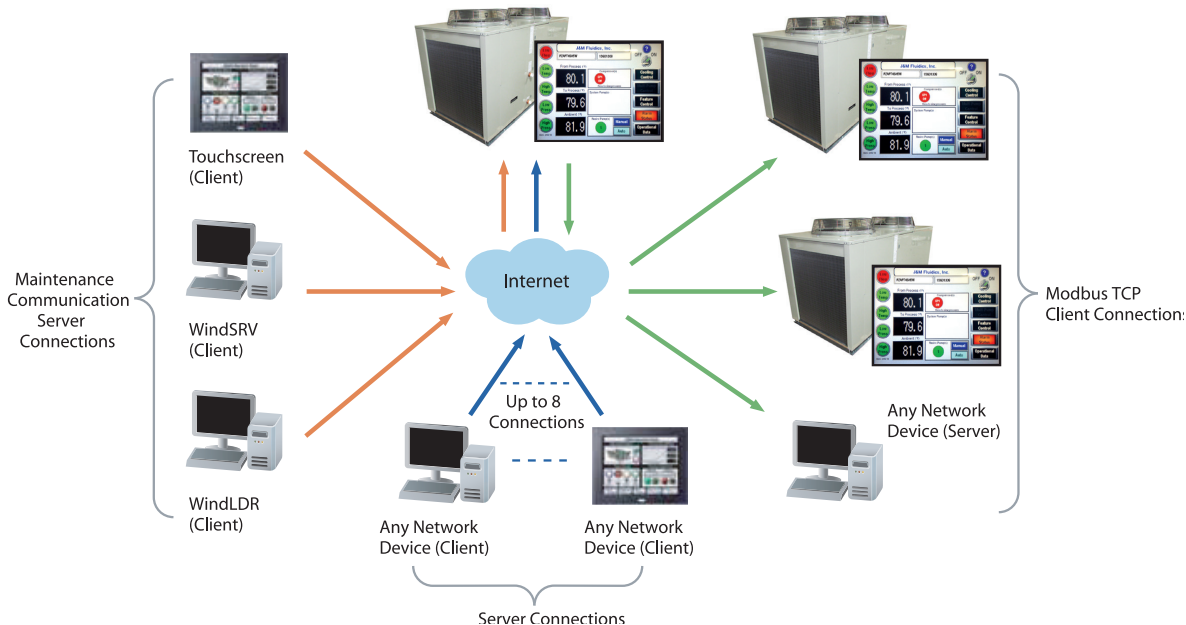- **I/O status indicators on for easy diagnostics**

"Plugin" Control Relays for quick easy replacement. No circuit board to replace. Less downtime and cost.
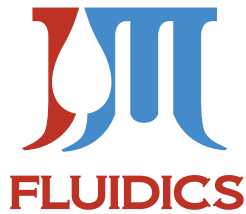
Offering Extended Connectivity Options...

Up to 14 Simultaneous Connections!

Using Maintenance Communication Server connections, up to 3 Client devices, such as OI touchscreen, WindLDR software and SCADA OPC server such as WindSRV (KepServerEx), can simultaneously communicate with your MicroSmart Pentra PLC. Using Server Connections, an additional 8 connections can be established and each connection can be defined as Maintenance, User Communication or Modbus TCP server protocol. On top of that, another 3 connections can be configured as Modbus TCP client protocol, with a maximum of 255 requests. Each request can be for different slave devices with different IP addresses on the network.

Touchscreen (Client)

Maintenance Communication Server Connections

WindSRV (Client)

WindLDR (Client)

Internet

Up to 8 Connections

Any Network Device (Client)

Any Network Device (Client)

Server Connections

Modbus TCP Client Connections

Any Network Device (Server)

IMPORTANT CONSIDERATION:

J&M offers an optional Level 3 managed switch allowing MODBUS connectivity to the Pentra MicroSmart PLC controller. In most cases, end users firewall settings will need to be updated to allow remote WAN connectivity.