

IntelliGen[®] HMV20 Dispense System

Integrates high-purity filtration with repeatable dispense for medium-high viscosity fluids

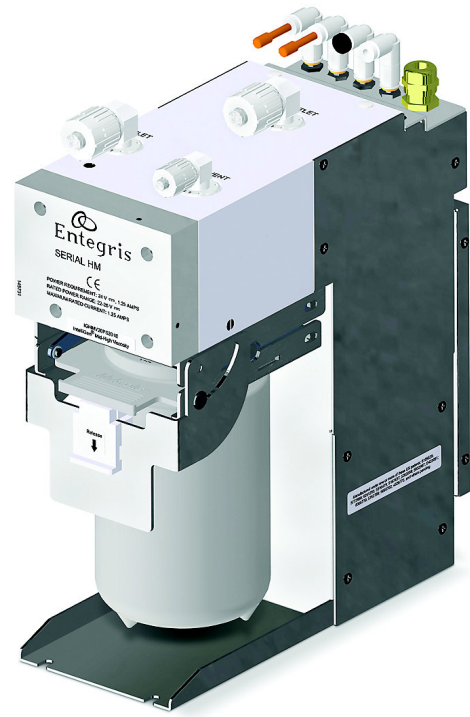
Building on the proven performance of two-stage dispense technology, combined with our innovative Connectology[®] filter design, the IntelliGen[®] HMV20 dispense system integrates high-purity filtration with repeatable dispense of medium-high viscosity fluids (300 to 1,000 cP). Our Optimizer[®] ST (OF style) filter easily slides into the system's compartment, enabling fluid to pass through the filter at the optimum flow rate for the specified retention rating, improving throughput and increasing uptime.

The integrated, dual-pressure sensor simplifies recipe programming and filter priming with user-friendly dispense diagnostics and real-time alerts in an intuitive programming interface. This dispense system includes several diagnostic features (dispense, cycle time, and ΔP confirmations) that notify when a partial or failed dispense occurs, helping to minimize costly wafer defects resulting from coating issues.

The compact design, superior performance, and interactive diagnostics make our IntelliGen HMV20 dispense system a smart choice to ensure dispense repeatability, longer filter life, and a greater return on investment.

APPLICATIONS

- Medium-high viscosity (300 - 1,000 cP) POU photochemical dispense



Allows 20 mL dispense volume maximum in 0.001 mL increments

FEATURES & BENEFITS

Two-stage dispense technology	Minimizes pressure changes enabling highly repeatable dispense
Real-time, interactive confirmation tool	Simplifies the system recipe and filter priming programming, and allows SPC data access for better process engagement
Intuitive programming interface	Provides user-friendly confirmation tools with real-time alerts that help minimize costly wafer defects resulting from coating problems

SPECIFICATIONS

Materials	Wetted surfaces	PTFE, modified PTFE, Kalrez®
Dispense performance	Volume	0.1–20.0 mL in 0.001 mL increments
	Dispense rate	0.1–3.0 mL/sec in 0.01 mL/sec increments
	Repeatability	<0.03 mL 3 sigma
	Viscosity range*	300–1,000 cP
	Maximum dispense design pressure**	1 MPa (150 psi)
Recharge performance	Fill, filtration, vent, and purge rates	0.1–3.0 mL/sec in 0.01 mL/sec increments
	Vent frequency	Auto venting or 1–10,000 dispense cycles
Mechanical	Connection type	Interchangeable Super 300 Type Pillar®, Super Type Pillar fittings
	Vent tubing	OD: 6.35 mm (0.25"), 9.53 mm (0.375")
		ID: 3.97 mm (0.156"), 6.35 mm (.025")
	Inlet and outlet tubing	OD: 9.53 mm (0.375")
		ID: 6.35 mm (0.25")
	Filter	Optimizer® ST filter (OF)
	Inlet gas type	Regulated N ₂ or CDA
Vacuum	- 68 kPa (20" Hg)	
Electrical	Current rating	1.25 amp
	Input voltage (system)	24 VDC
	Serial communication	Dependent on interface module
	Parallel communication	Triggers and acknowledgments
Dimension***	Height	303.8 mm (11.96")
	Width	104.9 mm (4.13")
	Depth	245.4 mm (9.66")
Weight	~9.6 kg (21.2 lbs)	
Certifications	CE	
Environments (indoor use only)	Altitude	<2,000 m
	Ambient temperature****	5° to 40°C (41° to 104°F)

*The pump is not limited to this viscosity range unless the dispense pressure goes beyond 150 psi.

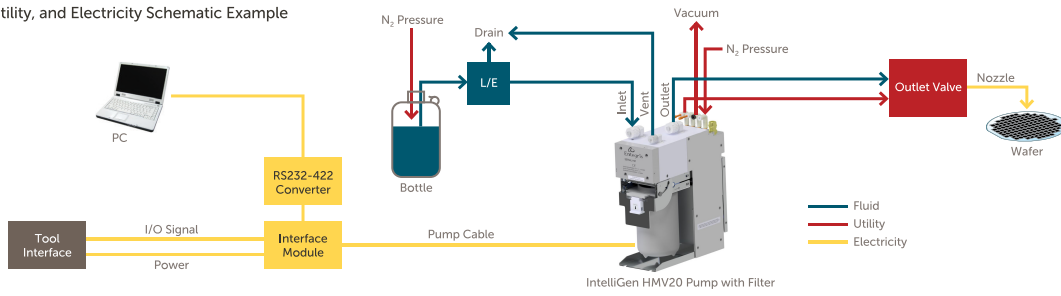
**Maximum pressure is a limit on the window of operation.

***Based on part number IGHMV20PKHP3

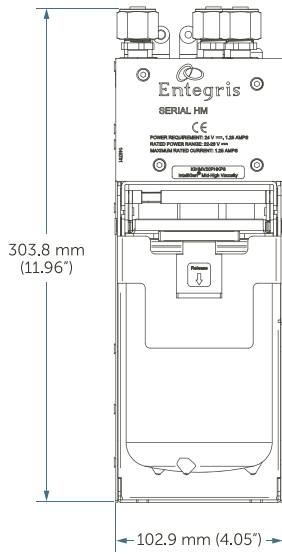
****Dependent on tool. Proper ventilation may be needed to keep the temperature consistent.

DIMENSIONS

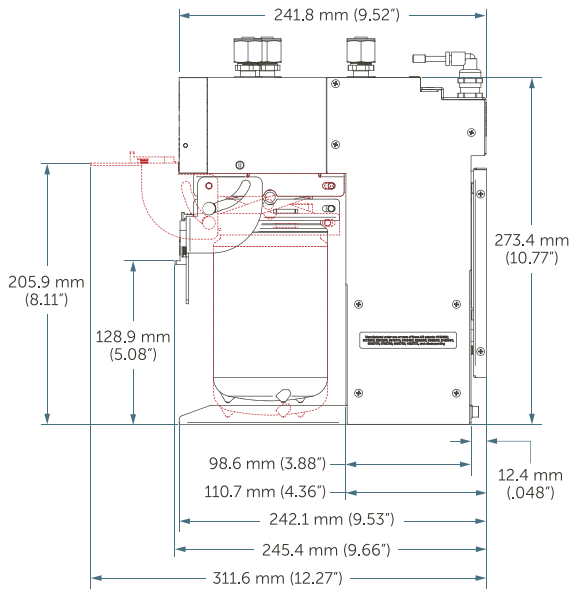
Fluid, Utility, and Electricity Schematic Example



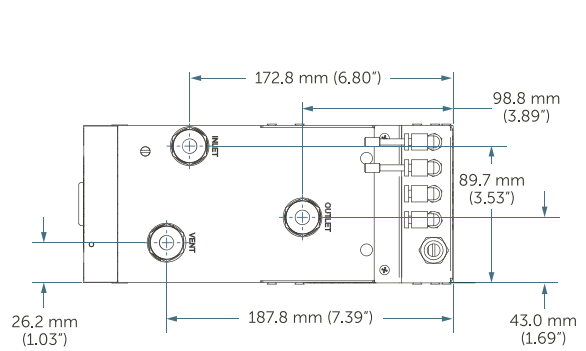
Front View



Side View



Top View



ORDERING INFORMATION

PART NUMBER	FITTING TYPE	FITTING CONFIGURATION	INLET	OUTLET	VENT	CABLE LENGTH	CONNECTOR
IGHMV20PHKP3	3/8" Super Type Pillar®	Straight	3/8"	3/8"	3/8"	1.0 m	D-Sub 25 pin
IGHMV20PS331E	3/8" Super 300 Type Pillar®	Elbow	3/8"	3/8"	1/4"	0.1 m	D-Sub 15 pin, 3 lines
IGHMV20PS331S	3/8" Super 300 Type Pillar®	Straight	3/8"	3/8"	1/4"	0.1 m	D-Sub 15 pin, 3 lines
IGHMV20PS333S	3/8" Super 300 Type Pillar®	Straight	3/8"	3/8"	3/8"	3.0 m	D-Sub 15 pin

FOR MORE INFORMATION

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