

IntelliGen® HV20 Dispense System

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

Building on the proven performance of two-stage dispense technology, combined with our innovative Connectology® filter design, the IntelliGen® HV20 dispense system integrates high-purity filtration with repeatable dispense of high viscosity fluids (1,000 to 20,000 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 resulting costly wafer defects.

The compact design, superior performance, and interactive diagnostics make our IntelliGen HV20 dispense system a smart choice to ensure dispense repeatability, longer filter life, and a greater return on investment.

APPLICATIONS

- High-viscosity (1,000 - 20,000 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*	1,000–20,000 cP
	Maximum dispense design pressure**	1.7 MPa (250 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	Inlet, outlet, vent connections	3/8" (9.53 mm) interchangeable Super Type Pillar® fitting
	Filter	Optimizer® ST filter
	Inlet gas type	Regulated N ₂ or CDA
	Inlet gas pressure	0.41 - 0.45 MPa (60 - 65 psid)
	Vacuum	- 68 kPa (20" Hg)
Electrical	Current rating	1.75 amp
	Input voltage (system)	24 VDC, 1.75 amp
	Serial communication	Dependent on interface module
	Parallel communication	Triggers and acknowledgments
Dimensions	Height	354.2 mm (13.95")
	Width	115.0 mm (4.53")
	Depth	328.3 mm (12.92")
Weight	~17.0 kg (37.5 lbs)	
Certifications	CE	
Environments (indoor use only)	Altitude	<2,000 m
	Ambient temperature***	5° to 40°C (41° to 104°F)

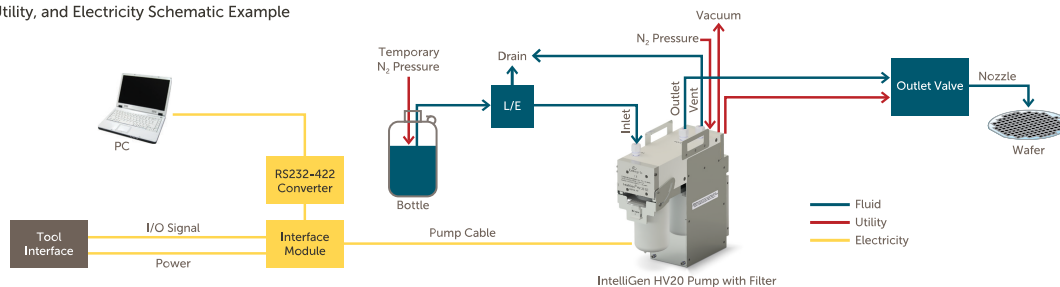
*The pump is not limited to this viscosity range unless the dispense pressure goes beyond 250 psi.

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

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

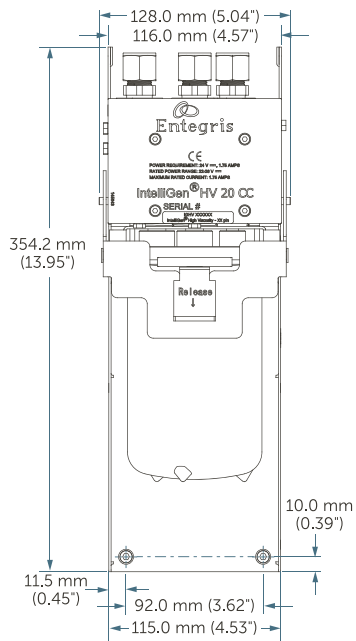
DIMENSIONS

Fluid, Utility, and Electricity Schematic Example

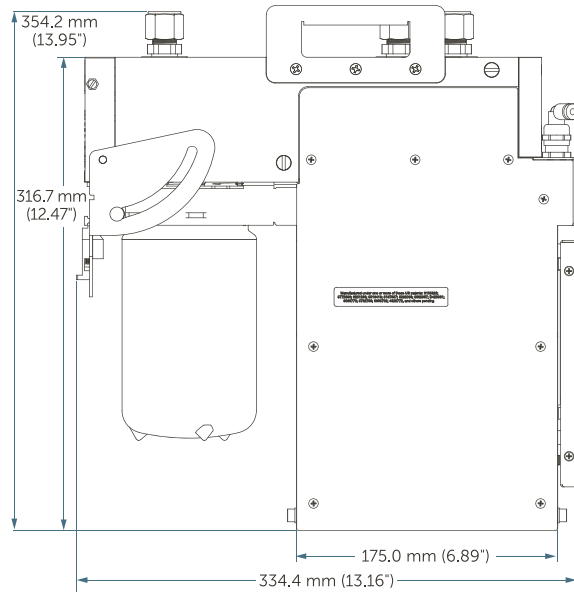


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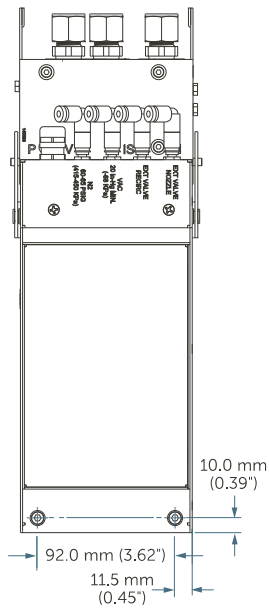
Front View



Side View



Back View



ORDERING INFORMATION

PART NUMBER	FITTING TYPE	CABLE LENGTH	CONNECTOR	FITTING CONFIGURATION
IGHV20PHBP3	3/8" Super Type Pillar®	1.2 m	RDS01 connector	Straight
IGHV20PHKP3	3/8" Super Type Pillar®	1.0 m	D-Sub 25 pin	Straight
IGHV20PHLP3	3/8" Super Type Pillar®	3.0 m	D-Sub 15 pin	Straight

ORDERING INFORMATION

PART NUMBER	FITTING TYPE	CABLE LENGTH	CONNECTOR	FITTING CONFIGURATION
IGHV20PKPL3	3/8" Super Type Pillar®	2.0 m	D-Sub 25 pin	Elbow

FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit [entegris.com](https://www.entegris.com) and select the [Contact Us](#) link to find the customer service center nearest you.

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