

Unist offers the most technologically-advanced integrated lubrication systems for through-spindle MQL applications.



INFINITY™

The Infinity™ sets a new standard for performance in dual-channel, through-spindle Minimum Quantity Lubrication (MQL) systems. Specifically designed for high-production through-spindle operations, it consistently, reliably, and accurately delivers MQL fluids through the spindle over a wide range of flow rates.

The Infinity™ provides nearly unlimited MQL rates and integrates with the machine controller at the PLC level. Designed around a continuous-flow pump, it is ideal for critical production cycles with repeated, short-duration operations. Using precise flow measurement, it monitors the pump output in real time with an accuracy of 1 mL/hr.



QUANTUM™

The Quantum™ is a leap forward in Minimum Quantity Lubrication (MQL) technology. This state-of-the-art system interfaces directly with machines, giving you total control over your MQL application.

The Quantum™ is a reliable, digitally-controlled applicator suitable for through-spindle applications, complex external spray applications, or a combination of both. It supports up to six outputs, and its intermittent positive-displacement pumps assure high accuracy with nearly unlimited MQL rates. Discrete inputs or serial commands allow close integration with CNC programs.



REVOLUTION™

The Revolution™ is designed specifically to integrate with CNC machine M-codes. Its patented technology brings the same level of computer controlled accuracy, precision, and repeatability to your cutting tool lubrication as the CNC controls bring to your machining operations.

The Revolution™ is a reliable, digitally-controlled applicator with support for up to 2 outputs. It features 4 MQL output rates at 25%, 50%, 75%, and 100% of a user-defined maximum. The Revolution™ controls its intermittent positive-displacement pumps through M-codes, and is appropriate for applications with a limited set of tool sizes and lengths.

System comparison

System	Price	Digital	MQL output levels	Pump type
Revolution™	\$	yes	4	intermittent
Quantum™	\$ \$	yes	unlimited	intermittent
Infinity™	\$ \$ \$	yes	unlimited	continuous

These applicators require a Unist Spindle Kit when used for dual-channel, through-spindle applications.

Specification comparison

Feature	Revolution™	Quantum™ <small>nearly unlimited</small>	Infinity™
Programmable MQL rates	4	nearly unlimited	nearly unlimited
Control from CNC program	M-code	discrete signal or serial command set	BCD interface or controller symbol table
MQL outputs	up to 2	up to 6	up to 3
Fluid delivery approach	intermittent positive-displacement pump	intermittent positive-displacement pump	continuous positive-displacement pump
Fluid adjustment	digital	digital	digital
Pump stroke	fixed	adjustable	continuous
Pump output	6 - 400 mL/hr. per output	6 - 400 mL/hr. per output	5 - 500 mL/hr. per output
Output accuracy	fluid and temperature independent	fluid and temperature independent	fluid and temperature independent
Viscosity dependencies	no	no	no
Ambient temperature dependencies	no	no	no
Air adjustment	limited digital	digital or manual	digital
Air blow-off	yes	yes	no
Tool change air release	no	no	yes
Low fluid level sensor	yes	yes	yes
Air pressure sensor	yes	yes	yes
Fluid flow sensor	flow/no-flow sensing	flow/no-flow sensing	measurement with 1 mL/hr. accuracy
Error handling	general alarm relay, alarm on unit	general alarm relay, alarm on unit, errors sent via serial API	general alarm relay, alarm on unit, errors sent via serial API, error status set for controllers
Reservoir size	64 oz. (1893 mL)	64 oz. (1893 mL)	4.5 gal. (17 L)
Dimensions	W - 10.63" (270 mm) H - 14.10" (358 mm) D - 8.46" (215 mm)	W- 21.12" (536 mm) H - 18.30" to 25.30" (465 to 643 mm) D - 6.56" (167 mm)	W - 22.60" (574 mm) H - 45.20" (1148 mm) D - 11.40" (290 mm)

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INFORMATION?**

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