AMCOSS DISPENSE SYSTEM FOR PHOTORESISTS: AMD 030

amcoss offers an advanced, highly accurate pump system specifically designed for the precise dispensing of a wide range of photoresists. This system has been approved by global OEMs. Built for efficiency and durability, the pump system delivers consistent performance and precise results, even after thousands of dispensing cycles. Its robust construction and cutting-edge technology make it a reliable choice for demanding applications, guaranteeing long-term accuracy and effectiveness.

High-precision, durable photoresist pump – easy to integrate, OEM-approved, long-lasting performance.

Your benefit

Approved and qualified: mature system in use with a great variety of resists

Superior precision: 30 ml dispense volume, adjustable to <0.01 ml

Wide range of recipes: 0.1 – 7 ml dispense/sec, programmable controller

Superior handling: reduced tool downtime with a plug-and-play solution from amcoss, including controller

Compatibility: compatible with any filters and ports (Flare, Pillar, etc.)

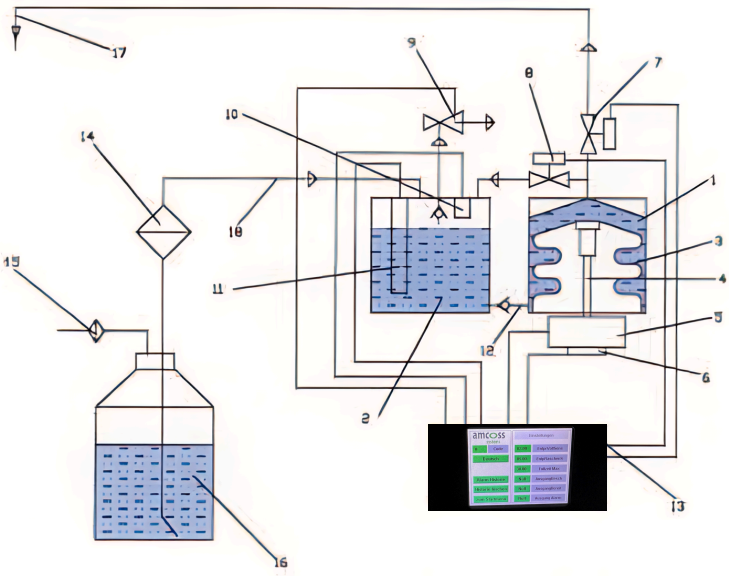
Integrability: can be integrated into new tools or retrofitted into existing ones

Technical competency: over 50 pumps handled annually by amcoss, with all spare parts available for refurbishment or repair

Quality control: all pumps are extensively tested for a minimum of 3.000 cycles, with a tolerance of 0.1 ml.

Warranty: 1-year warranty provided by amcoss, with installation support available upon request

Functional diagram of the amd 030 pump

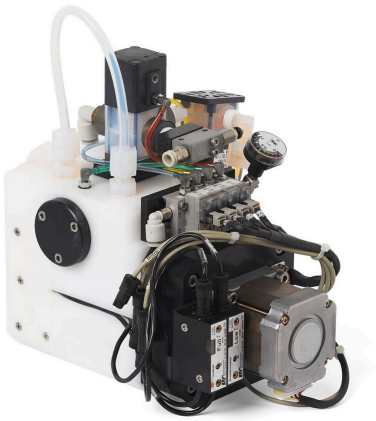


1 Pump space
2 Dispense-buffer
3 Teflon bellow
4 Shaft
5 Stepper motor
6 Optical encoder
7 Air control output valve
8 Air control vent valve
9 Venturi
10 Upper level sensor
11 Lower level sonsor
12 Check valve
13 Pump controller
14 Dispense filter
15 Air filter
16 Bottle
19 Outlet nozzle
18 Inlet tube

Dispense steps

1. The vent valve (8) opens, and the stepper motor (5) drives the PTFE bellow (3) to push the degas volume back into the dispense buffer with the degas speed.
2. The vent valve closes, and the output valve (7) opens after a programmable delay. The stepper motor begins to dispense resist at the programmable start speed. During dispensing, the speed changes linearly to the final speed.
3. At the end, the bellow (3) retracts the suckback volume at the suckback speed.
4. After suckback, the bellow retracts to the home position and draws resist from the dispense buffer.
5. The buffer is refilled by sucking resist from the bottle.
6. An empty sensor in the bottle signals when the bottle is empty.

Technical details of the pump



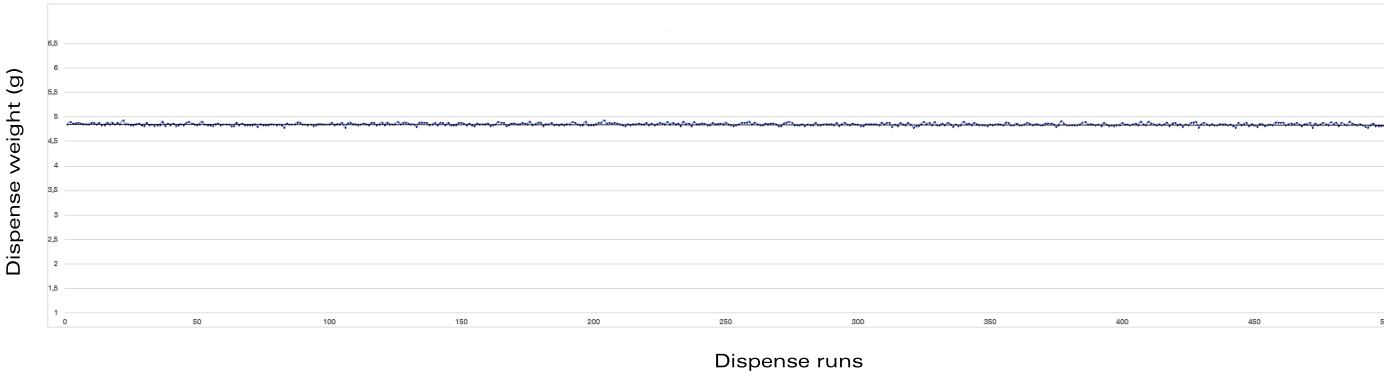
amd 030

Pump volume	Approx. 50 ml
Reservoir	Approx. 85 ml
Dispense quantity	0 - 30 ml, programmable in 0,01 ml increments
Dispense speed	0,1 - 7 ml/sec, programmable in 0,01 ml increments
Repeatability	+/- 0,05 ml
Air pressure	5 bar
Nitrogen pressure	0 - 3 bar
Vent quantity	0 - 3 ml, programmable
Suckback quantity	Programmable
Suckback speed	Programmable
Control of reservoir	Capacitive sensors
Control of bottle	Capacitive sensor
Medium	Photosensitive resists/solvents
Viscosity	Up to approx. 2000 cp
Connection	Standard: input 4 mm, output 2 - 4 mm

Technical details of the controller

Size	138 x 138 x 160 mm (W x H x D)
Recipe editor	9 recipes, degas volume, degas speed dispense volume, start speed, end speed, suckback volume, suckback speed
Mode	Local & remote mode, operator & service mode
Alarm	Display of current alarms, alarm history (data & time stamp)
Settings	Language (English, German, French), timeouts, sensor debounce time
Communication	Digital IO / RS232 / RS485
Supply	24 V

Dispensing accuracy of amd 030



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