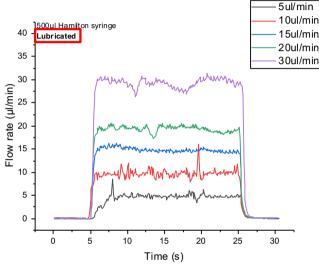
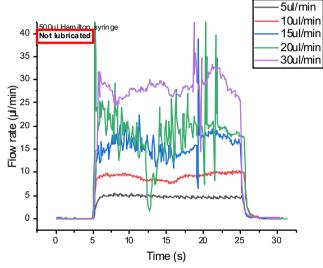
Chemyx syringe pump lubrication test



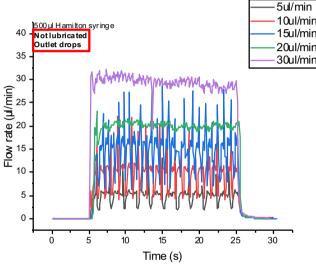
Chemyx 4000 pump, 500ul Hamilton gas-tight syringe, water, Fluigent flow cell 10fps



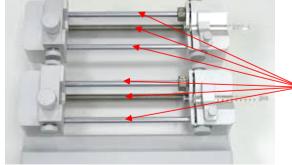
Acceptable flow rate fluctuations



High and uncontrolled flow rate fluctuations from medium flow rates



Drops at the outlet produce high flow rate peaks in both directions



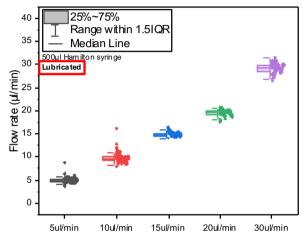
Lubricate these parts
(sliding rails and propulsion screw) after cleaning the pump every 2-3 months

- → Lubrication of the sliding rails and propulsion screw important (any kind of lubricant will do it)
- $\ensuremath{ \rightarrow}$ Drops at the outlet need to be avoided with reservoir
- $\ensuremath{ \rightarrow }$ Capacitance of the channel could damp/improve flow rate peaks

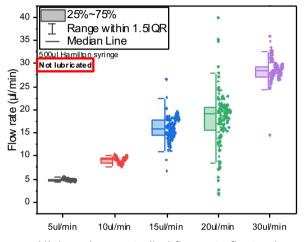
Chemyx syringe pump lubrication test



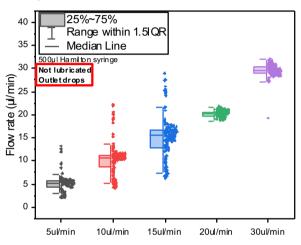
Chemyx 4000 pump, 500ul Hamilton gas-tight syringe, water, Fluigent flow cell 10fps



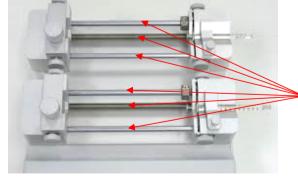
Acceptable flow rate fluctuations, narrow distribution



High and uncontrolled flow rate fluctuations from medium flow rates



Drops at the outlet produce high flow rate peaks in both directions; at high flow rates, the single drops transform into a more continuous flow



Lubricate these parts
(sliding rails and propulsion screw) after cleaning the pump every 2-3 months

- → Lubrication of the sliding rails and propulsion screw important (any kind of lubricant will do it)
- \rightarrow Drops at the outlet need to be avoided with reservoir
- → Capacitance of the channel could damp/improve flow rate peaks