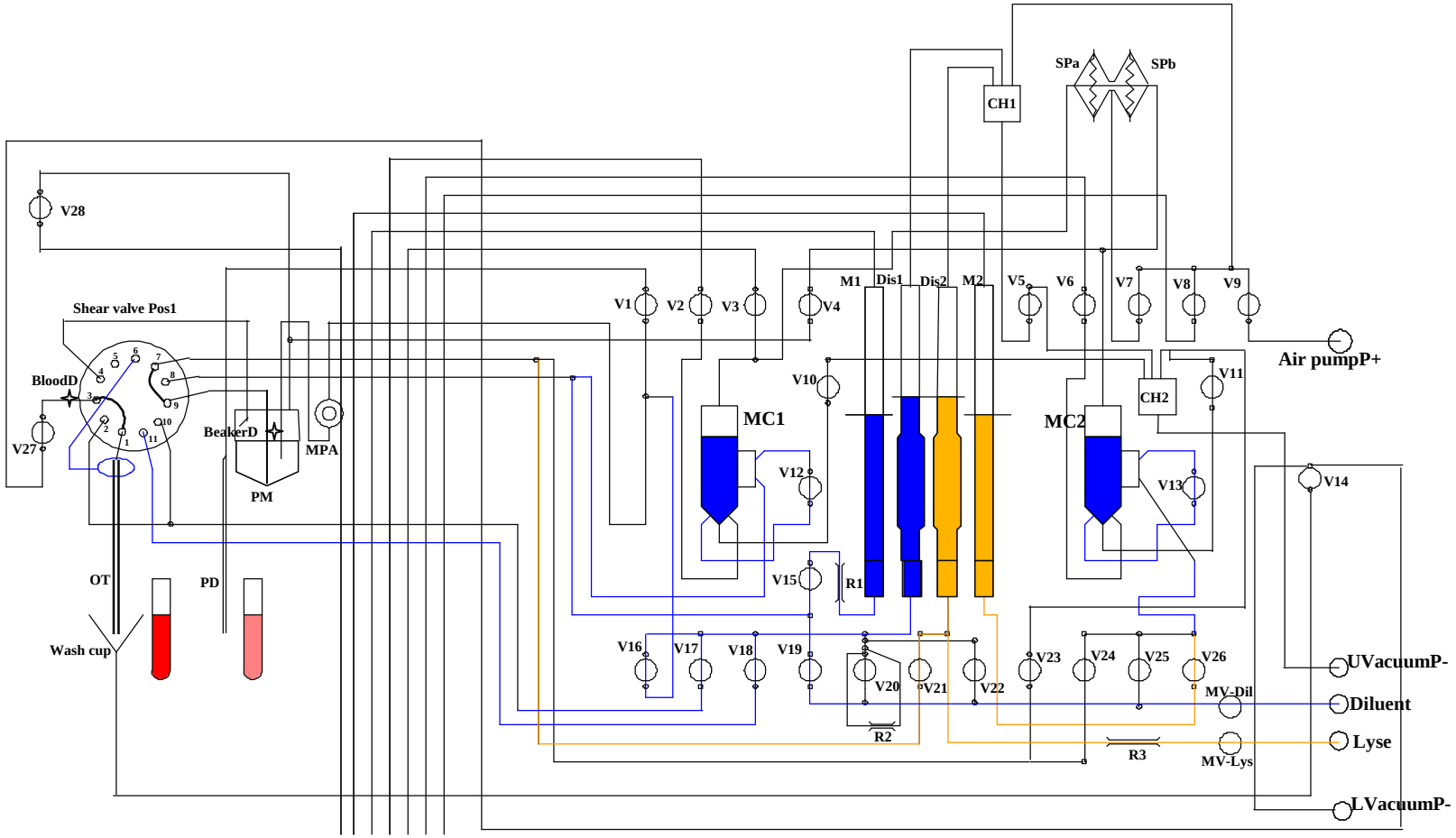
Boule

BM800 Flow diagram

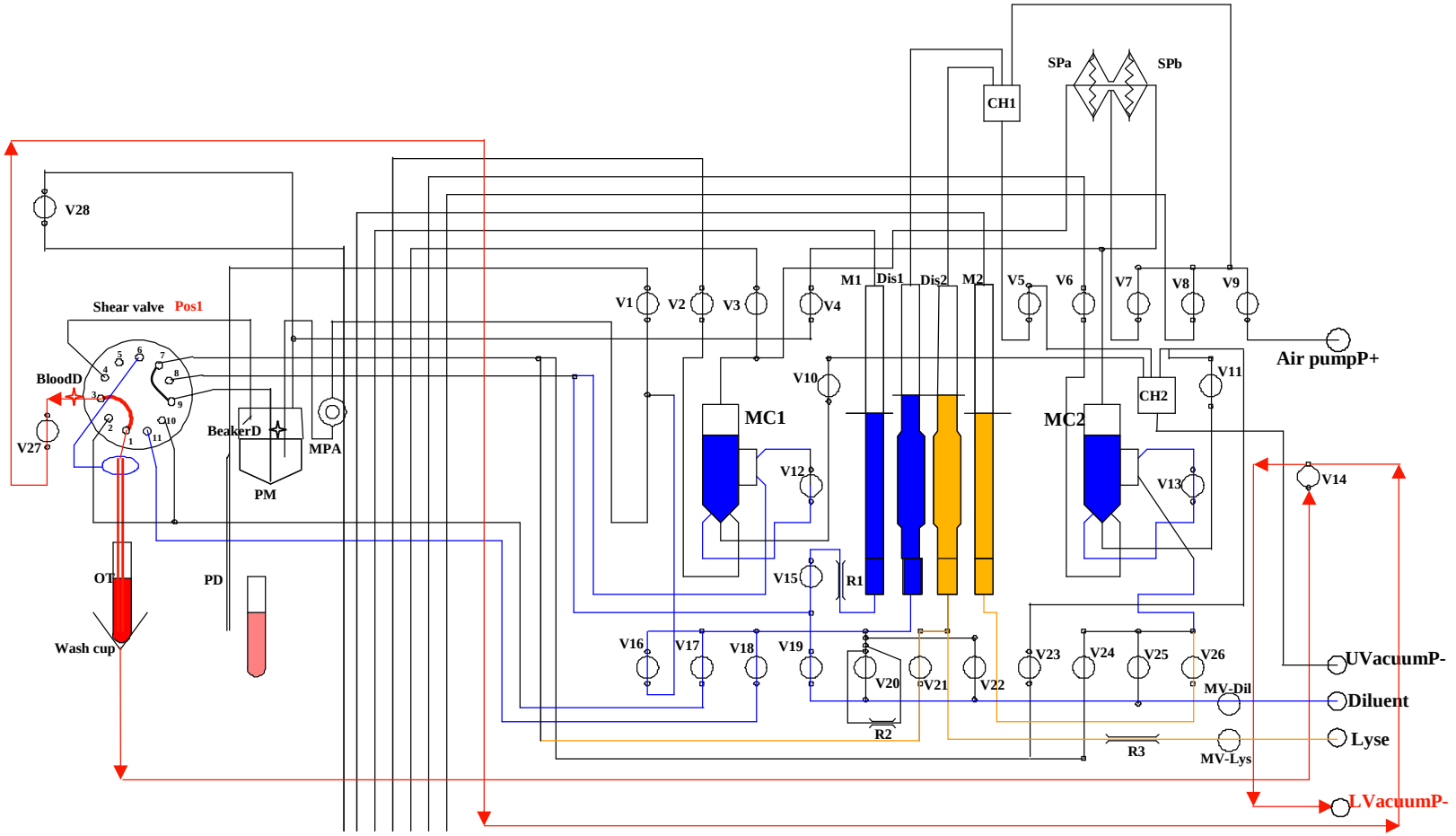
General description of flowchart

Ready for analysis



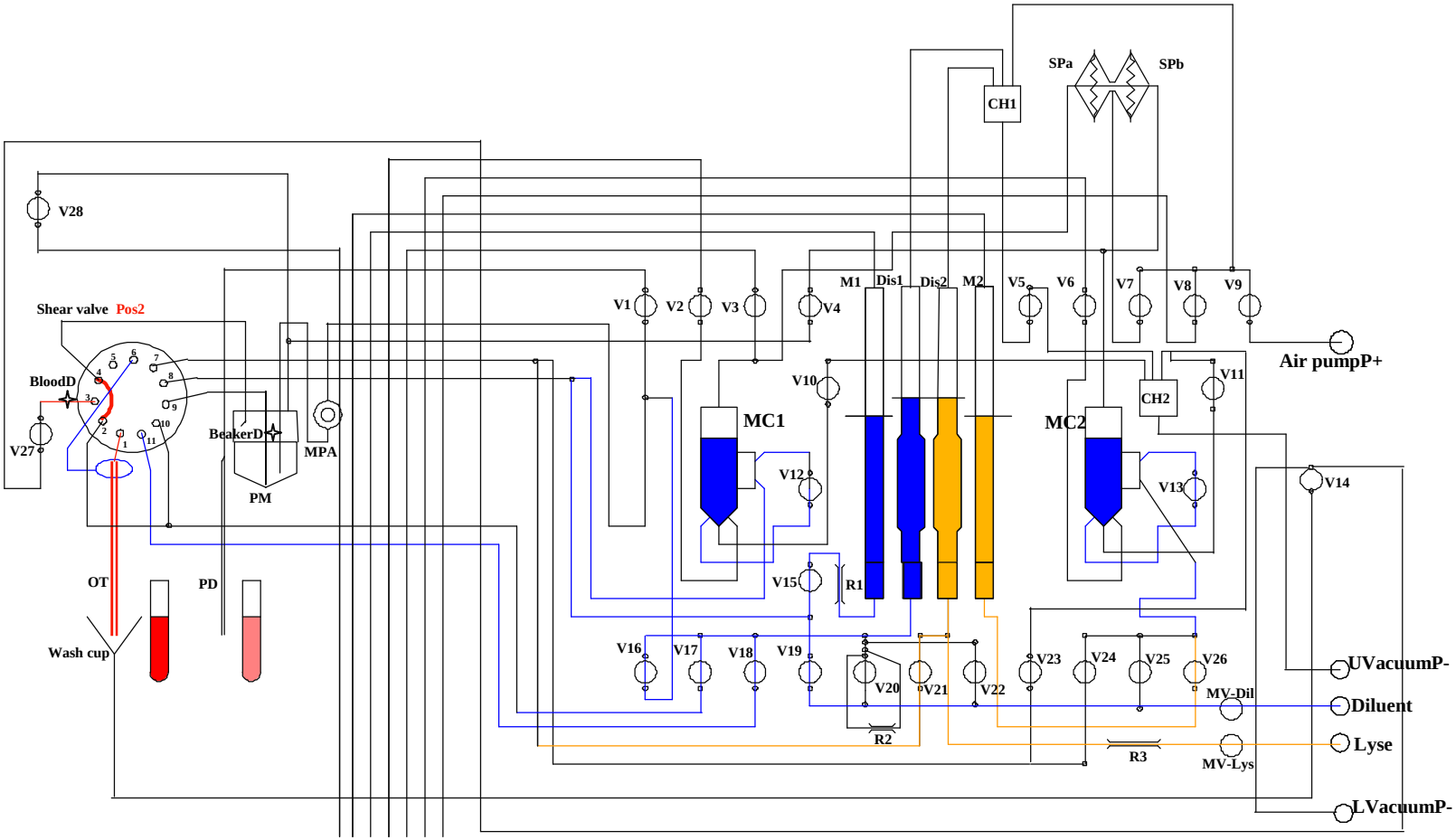
- **Initial state with 4 pipettes full, 2 measuring chamber filled**

Whole blood aspiration (open tube)



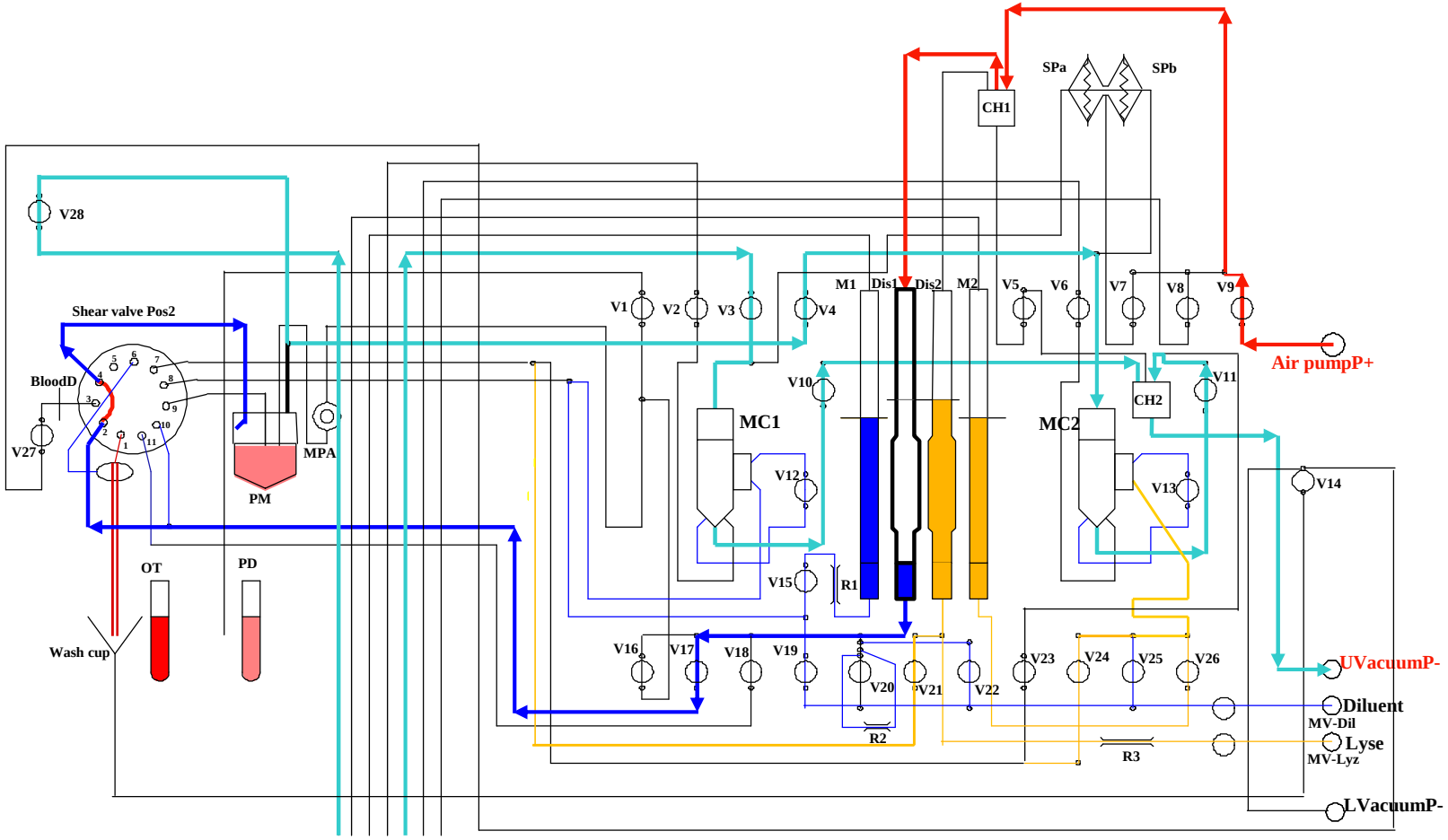
- **Lower P- aspirates blood sample via V27, SV1-3, Process terminated by blood detector**
- **P- aspirates from wash cup via V14 in the same time**

Prepare for first dilution



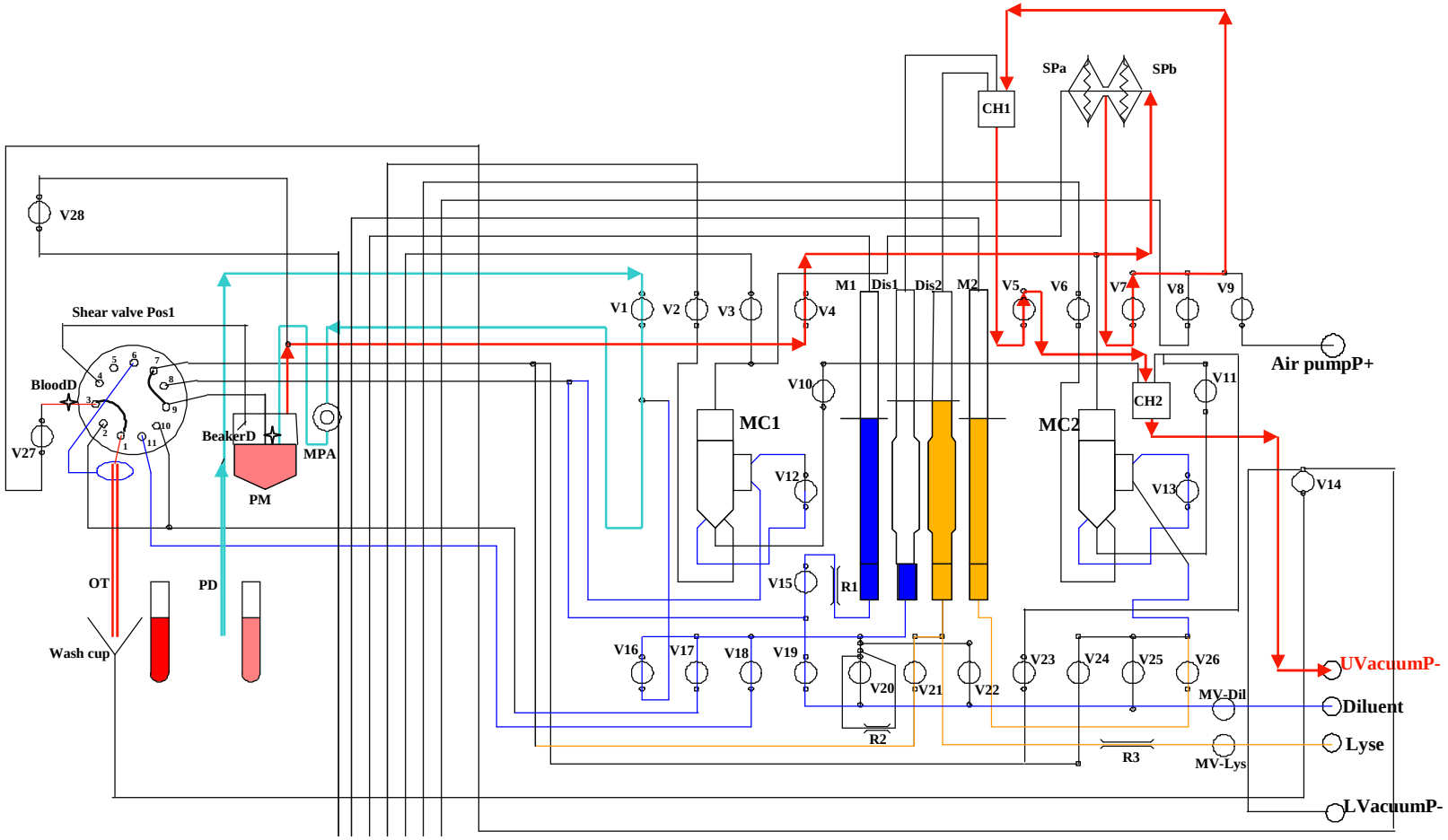
- **Shear valve turns to Pos2, blood sample moves to SV2-4.**

First dilution



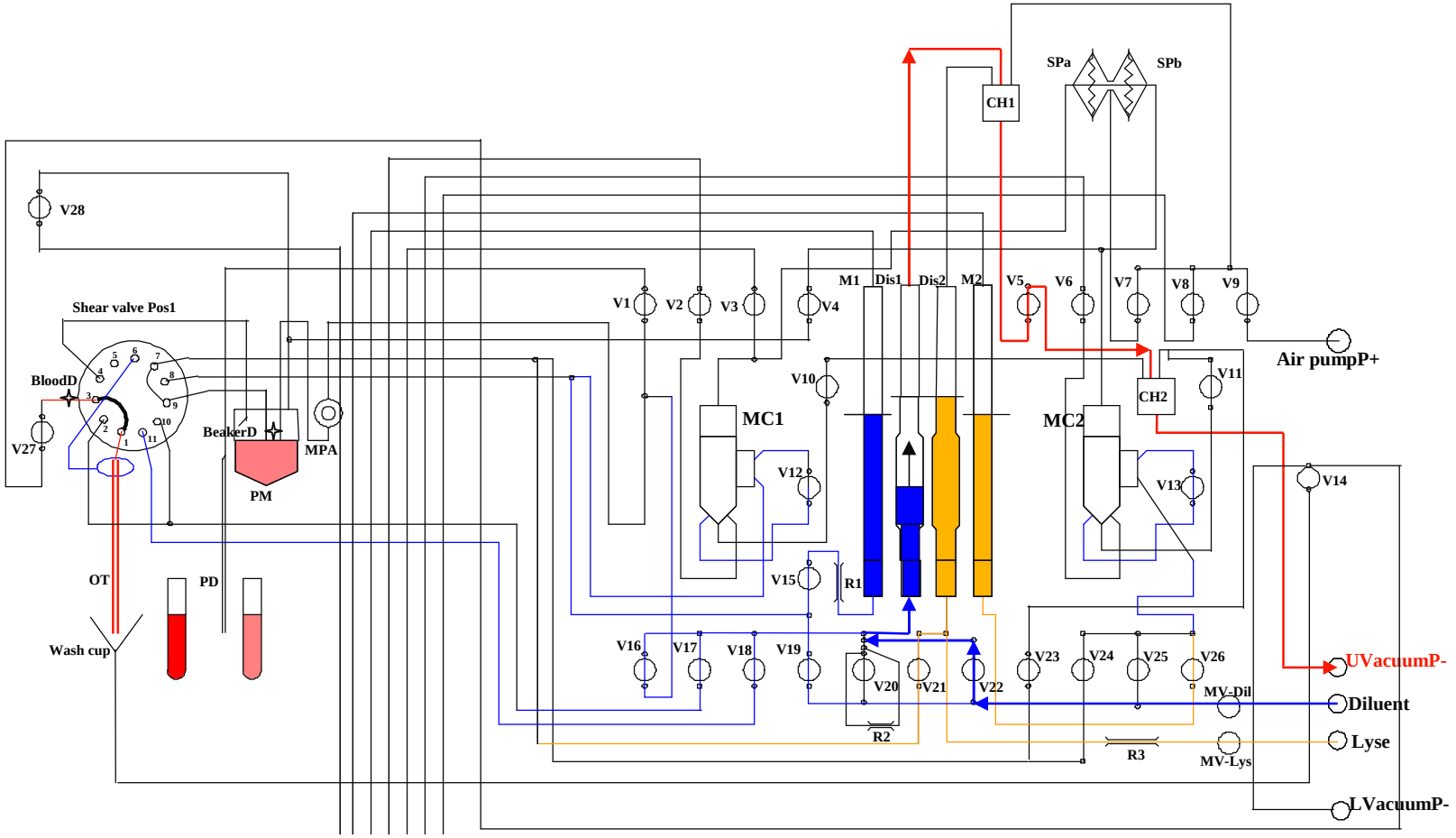
- P+ pushes 4.5 ml dil from Dis1 to PM via V9, V17, SV2-4
- P- Empties both RBC and WBC chambers via CH2, V11, V10, MC1 air vent via V3, MC2 via V4, V28

Mix in PM beaker



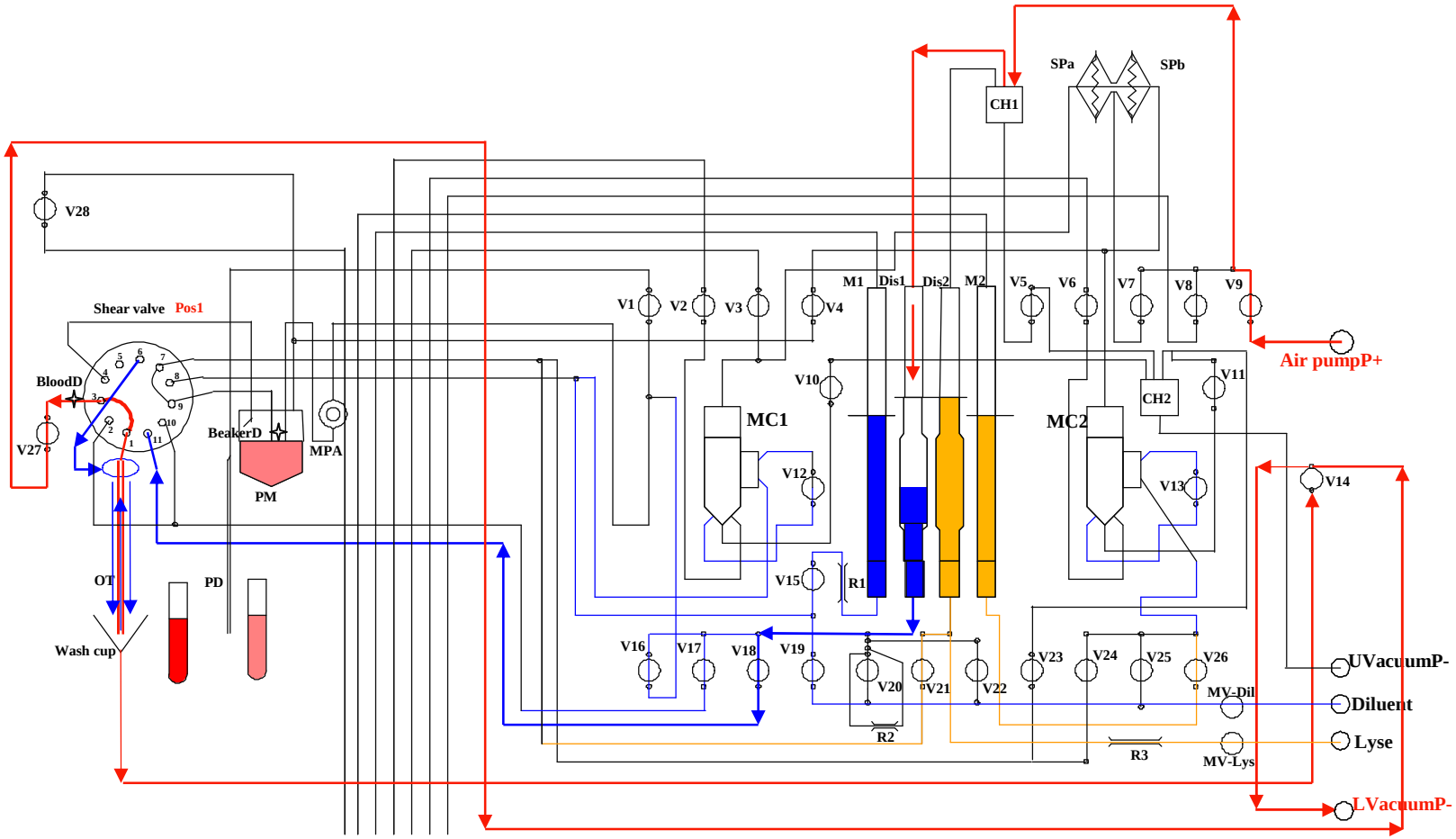
- **P- creates vacuum in PM by loading SP via CH2, V5, CH1, V7, V4**
- **Air gets in PM and bubble-mix via V1, MPA and PD needle**

Prepare for pipette wash



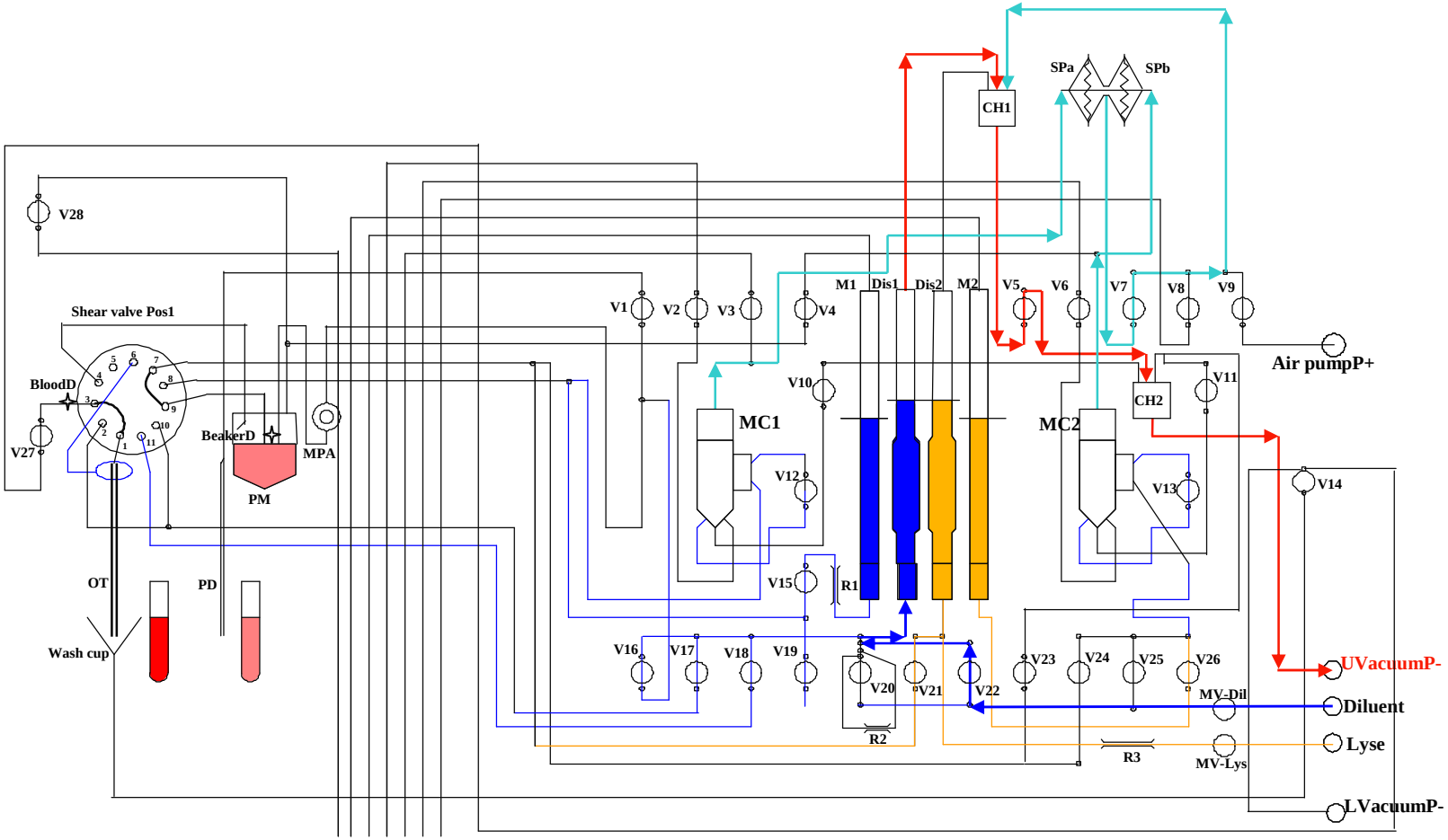
- **Upper part P- aspirates dil to Dis1 via V-dil, V22, CH1, V5, CH2 by timing**

Pipette wash



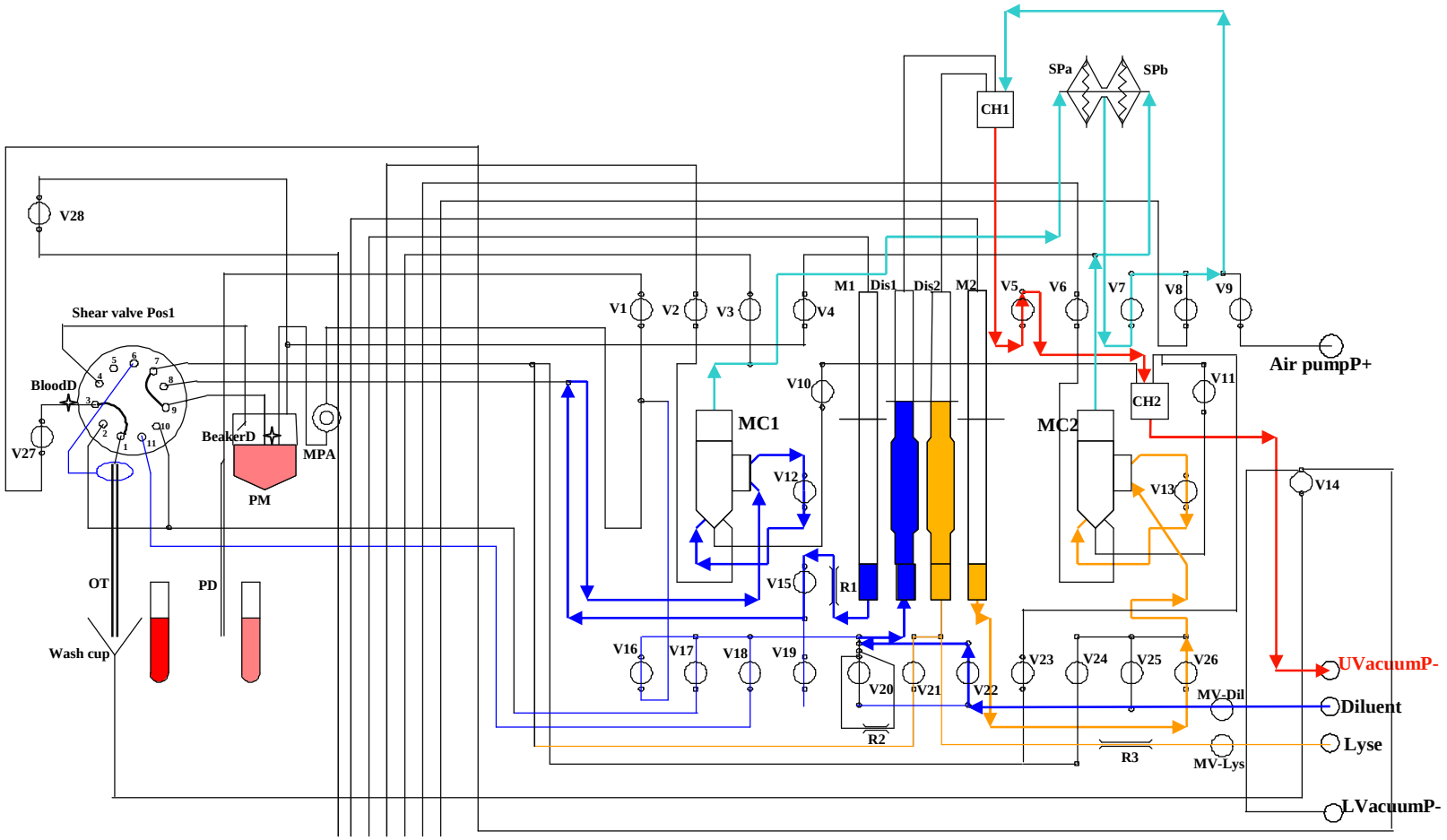
- P+ pushes dil from Dis1 to washing device via V9, CH1, V18, SV11-6, outside of needle
- Lower part P- collects waste from inside needle via SV1-3, V27 and from wash cup via V14

Fill diluent pipette



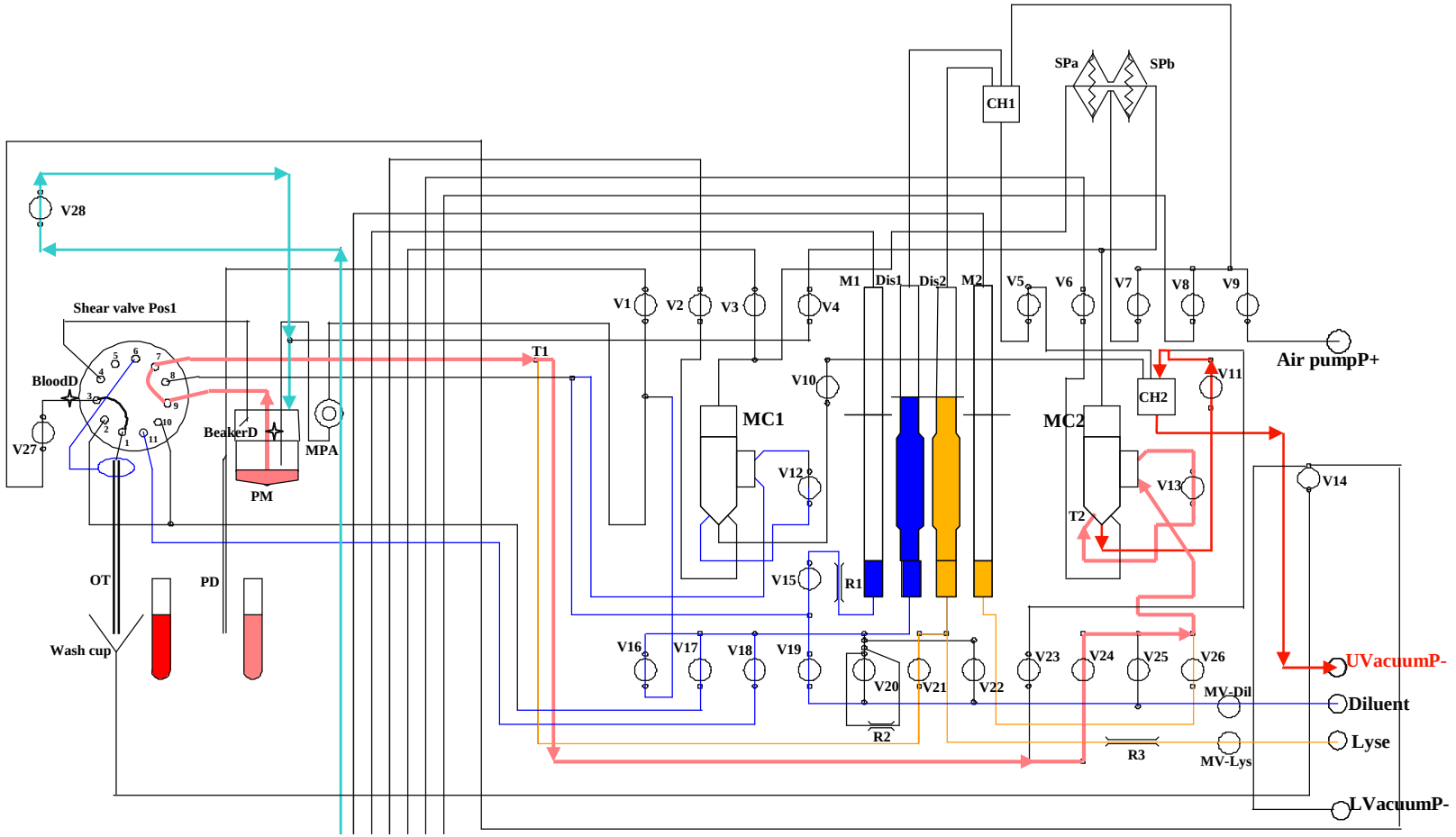
- P- fills Dis1 via CH2, V5 CH1, V22 and MV-Dil
- P- charges SP to create vacuum in MC1 and MC2

Empty measuring pipettes



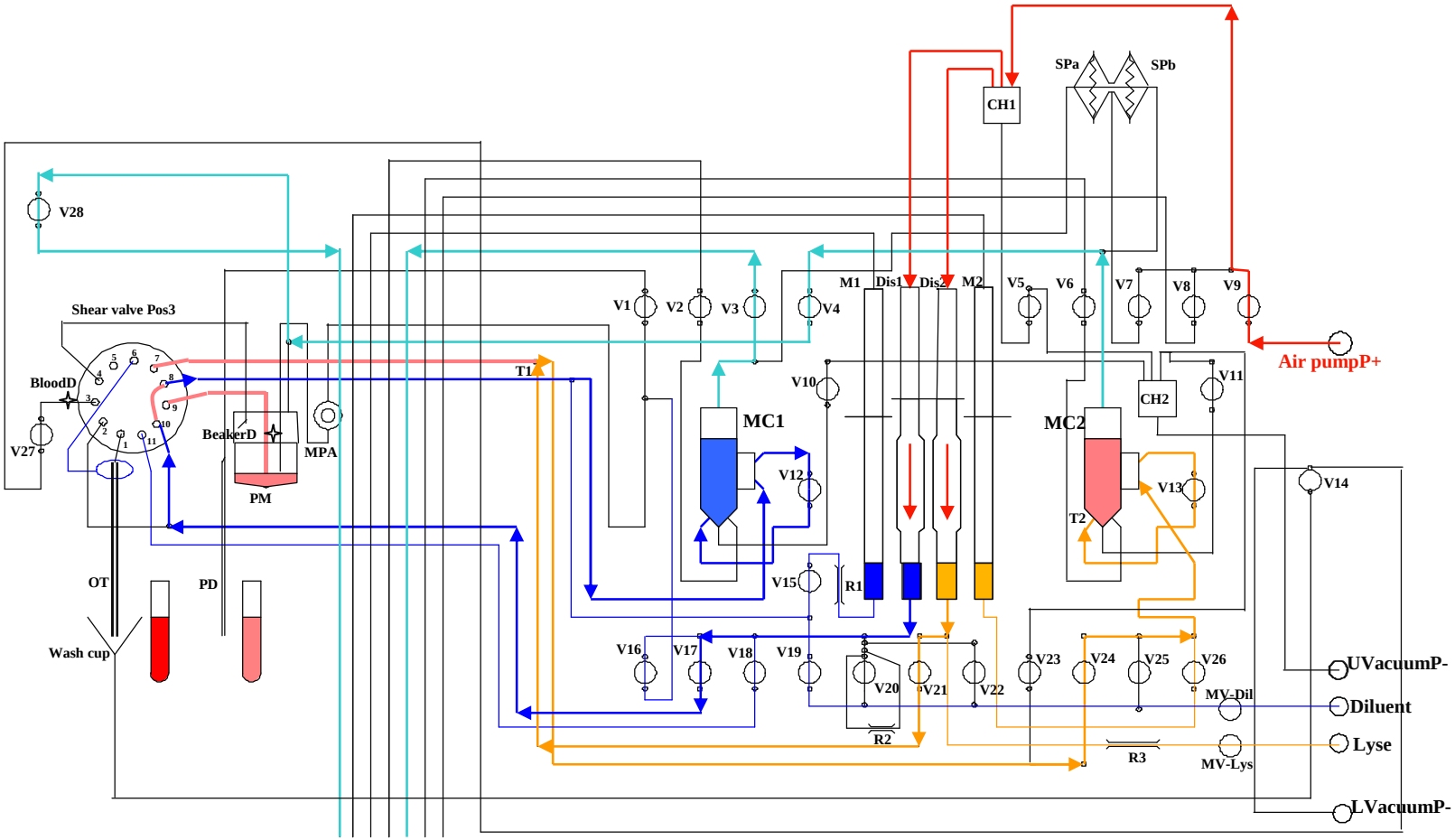
- Empty M1 via V15, MC1 bypass, V12, SPa
- Empty M2 via V26, MC2 bypass, V13, SPb

Prepare for second dilution



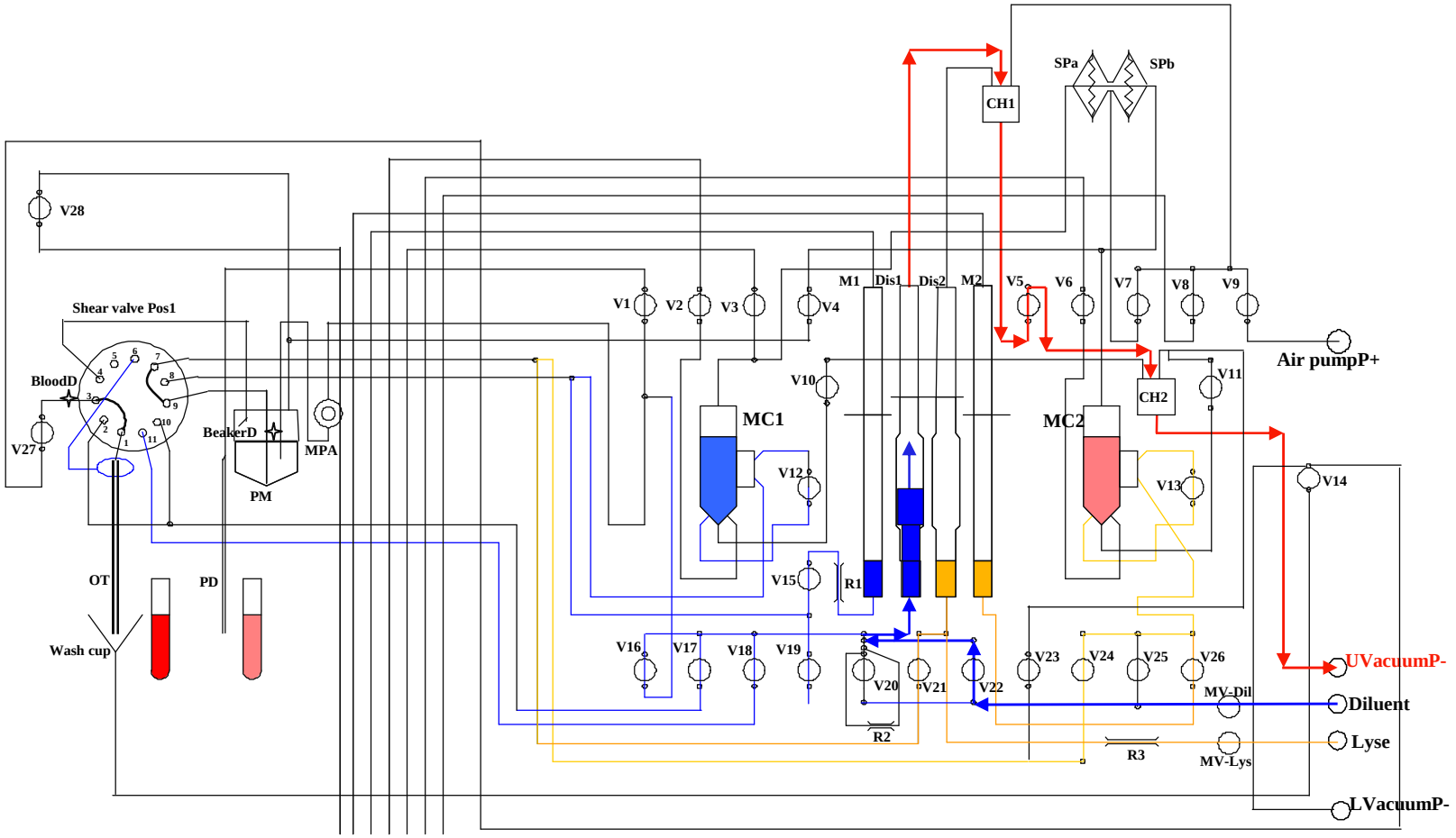
- P- transfers 1:200 diluted blood from PM to MC2 via SV9-7, T1, V24, V13, T2, V11, CH2
- Process stopped by BeakerD signal, around 0.5 ml remains in PM beaker

Second dilution



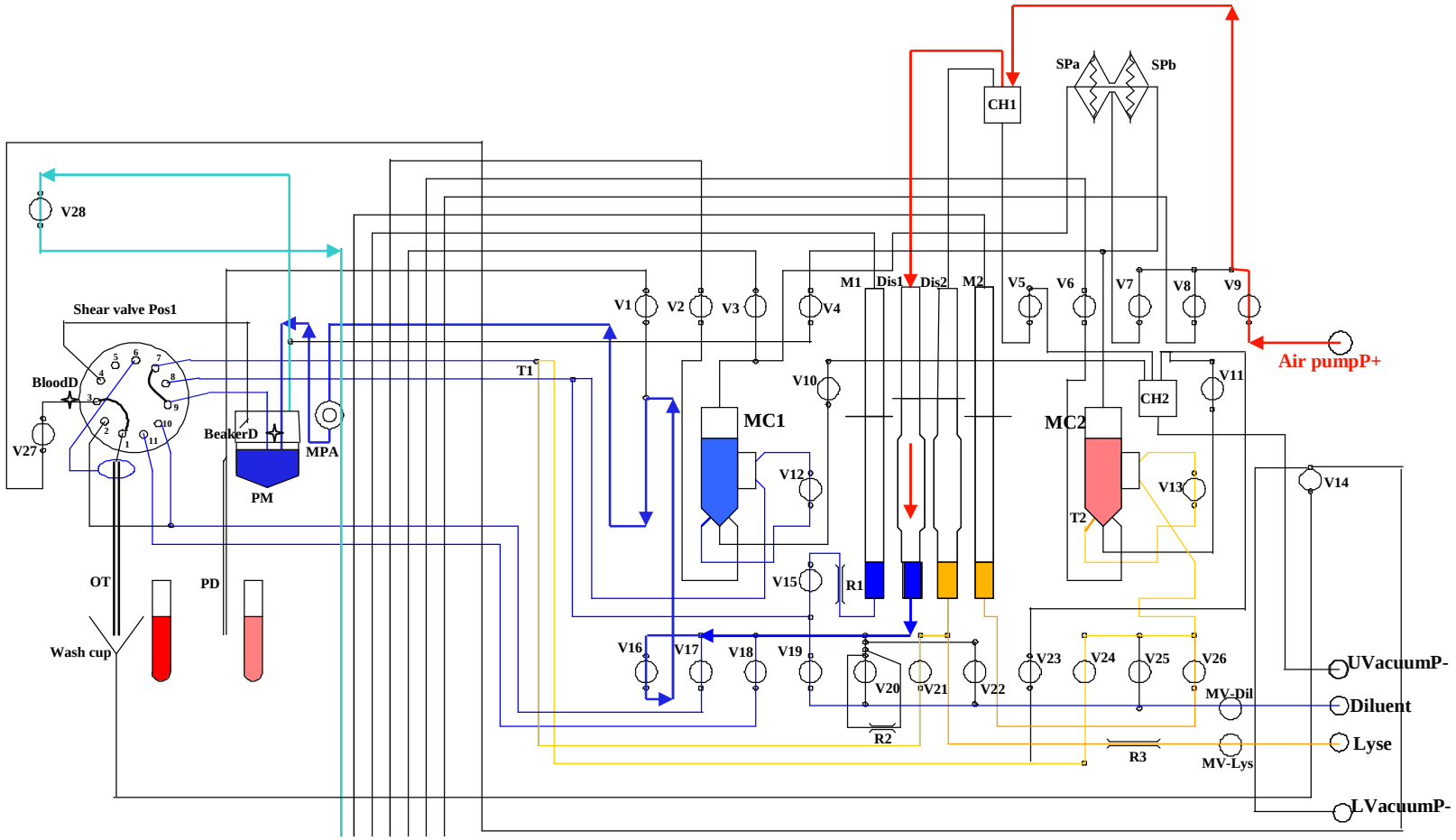
- P+ pushes diluent from Dis1 to MC1 via V9, CH1, V17, SV8-10, V12; lyze from Dis2 to MC2 via V21, T1, V24, V13, T2
- MC1 air vent via V3; MC2 air vent via V4, V28

Prepare PM beaker wash



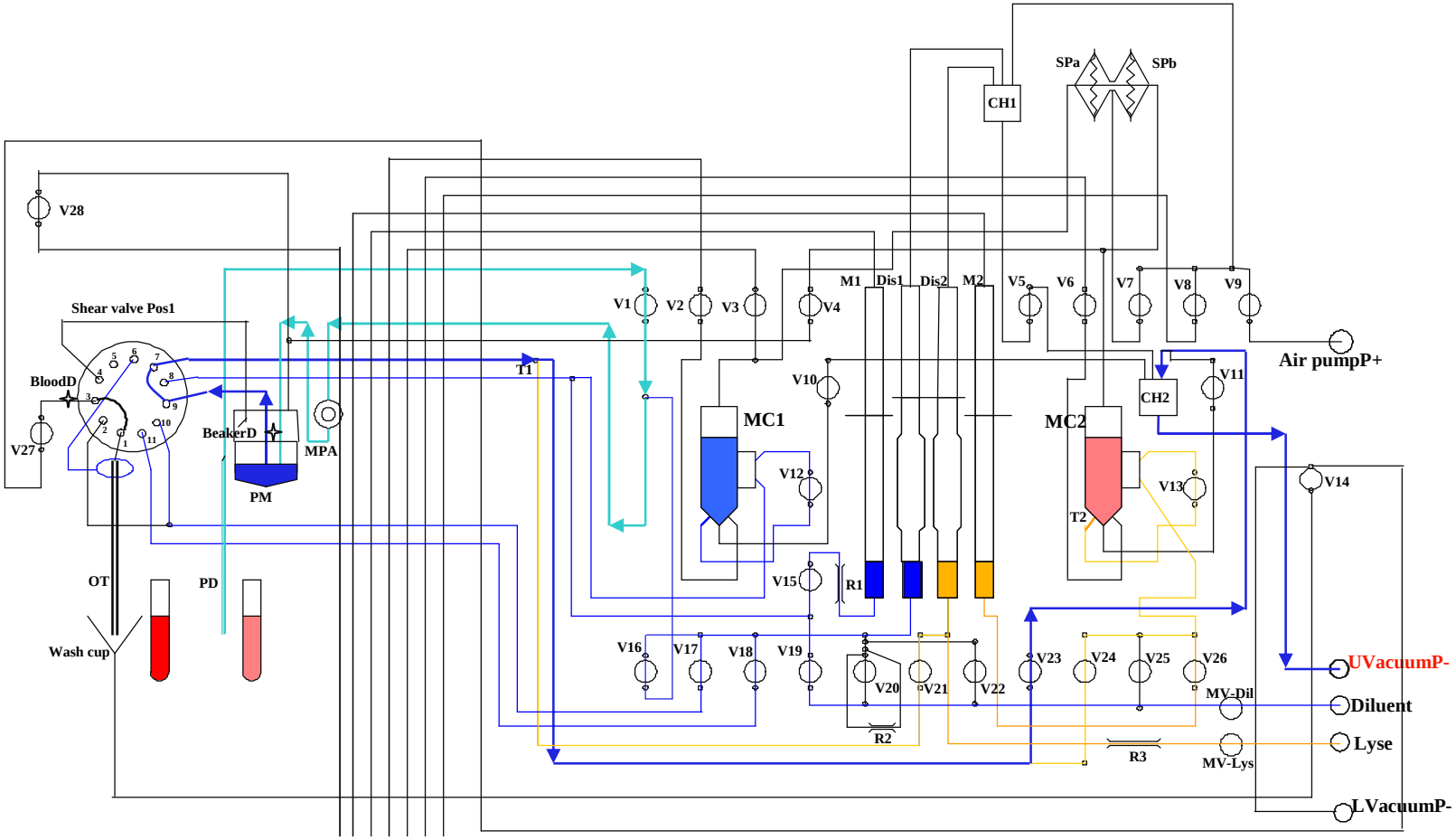
- **P- moves 2-3 ml Dis1 via CH2, V5 CH1, V22 and MV-Dil by timing**

Wash PM beaker



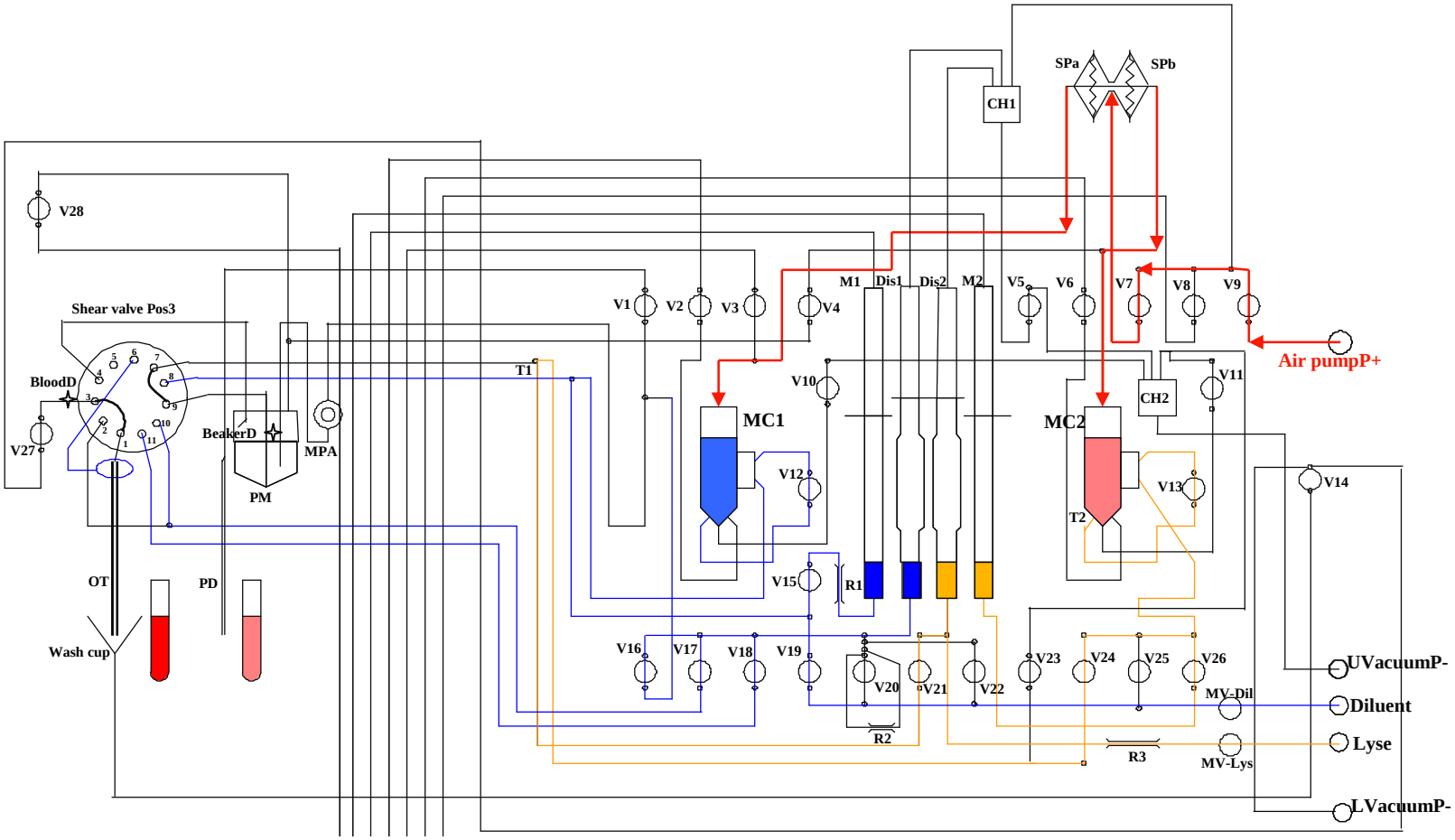
- P+ pushes diluent from Dis1 to PM via V9, CH1, V16, MPA
- PM air vent via V28

Drain PM beaker



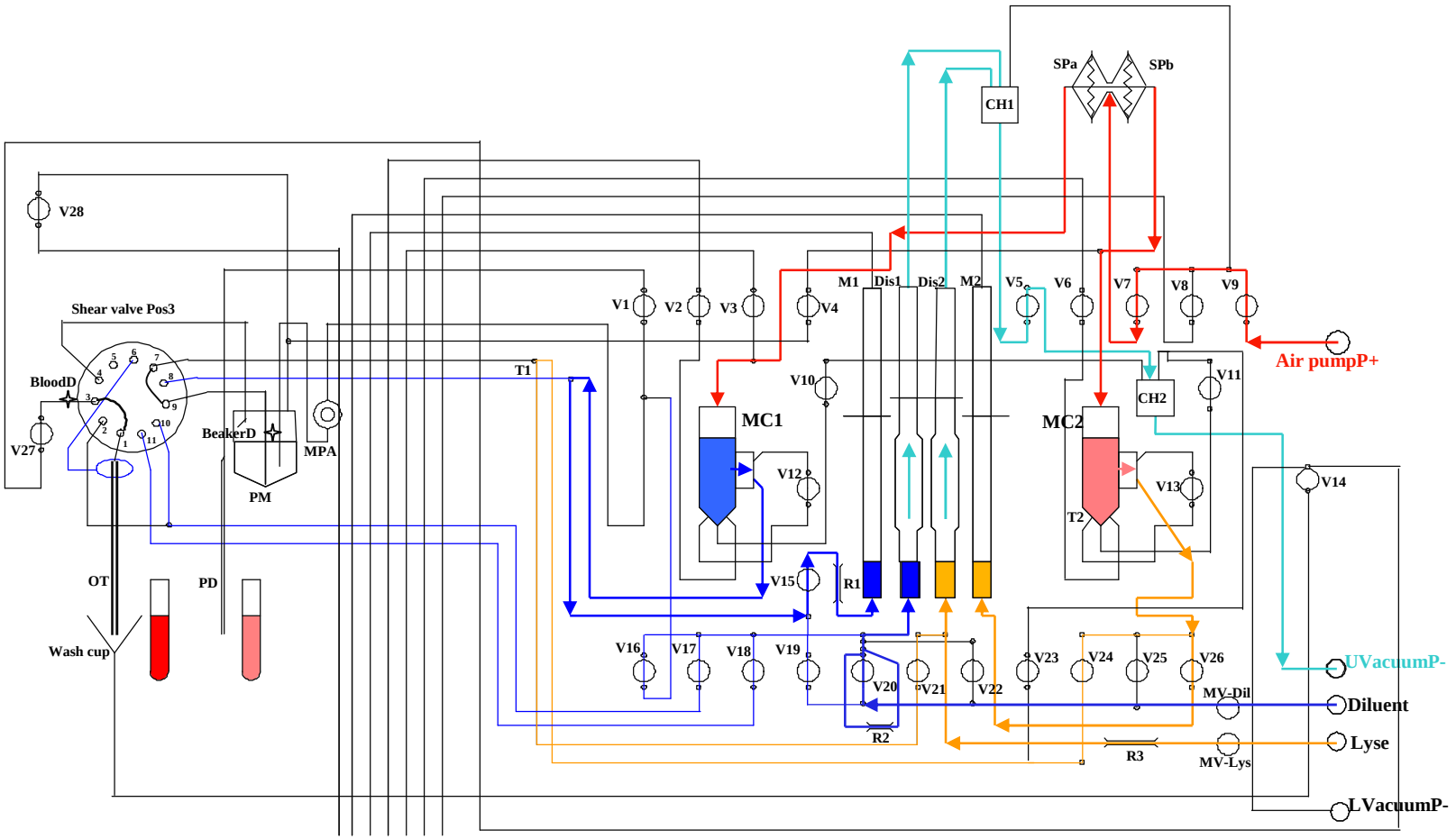
- P- empties PM via CH2, V23, SV7-9
- PM ventilated by MPA, V1 and PD needle

Prepare for counting



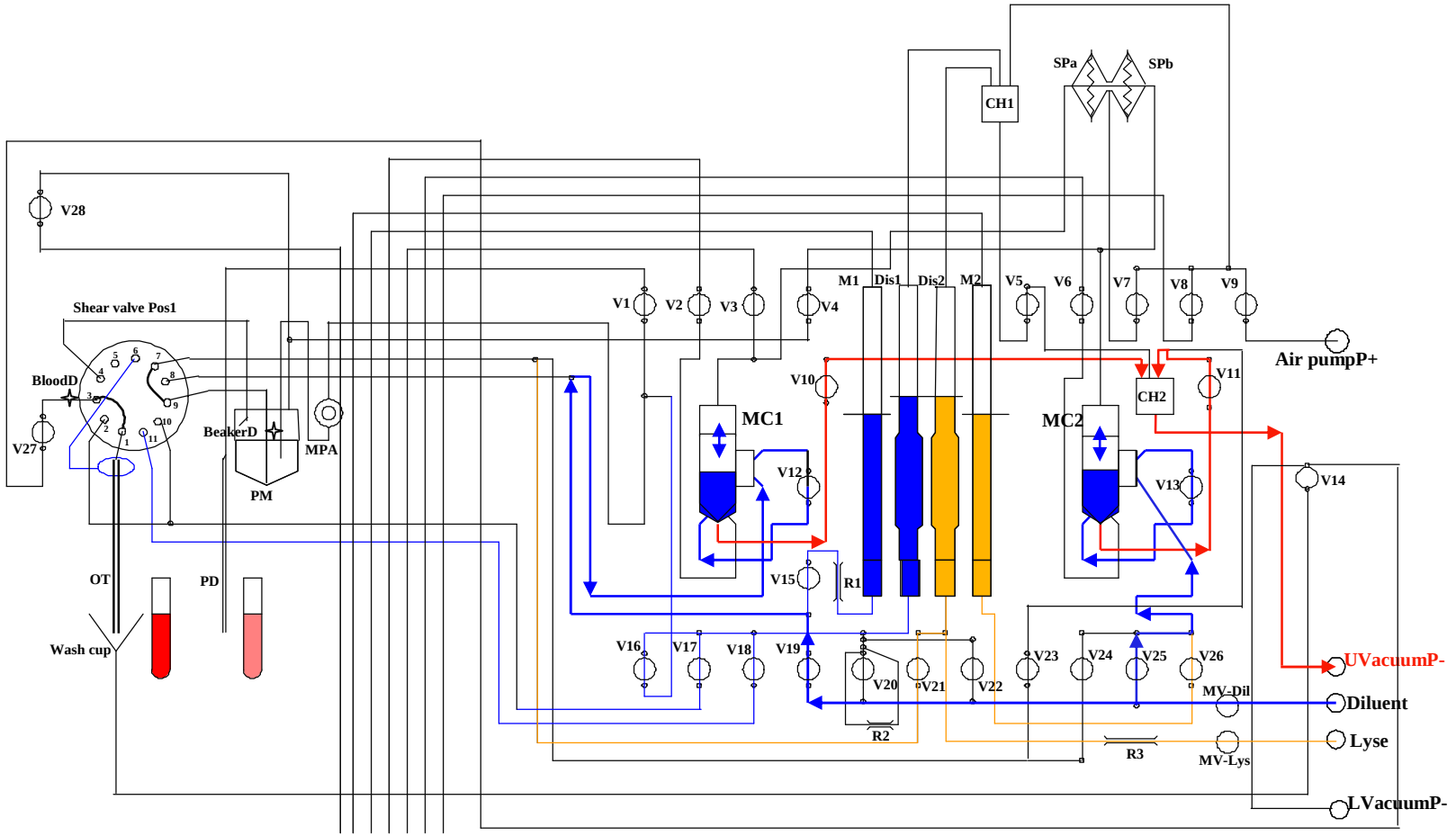
- **P+ loads SP to pressurize MC1/2 via V9, V7**

Count



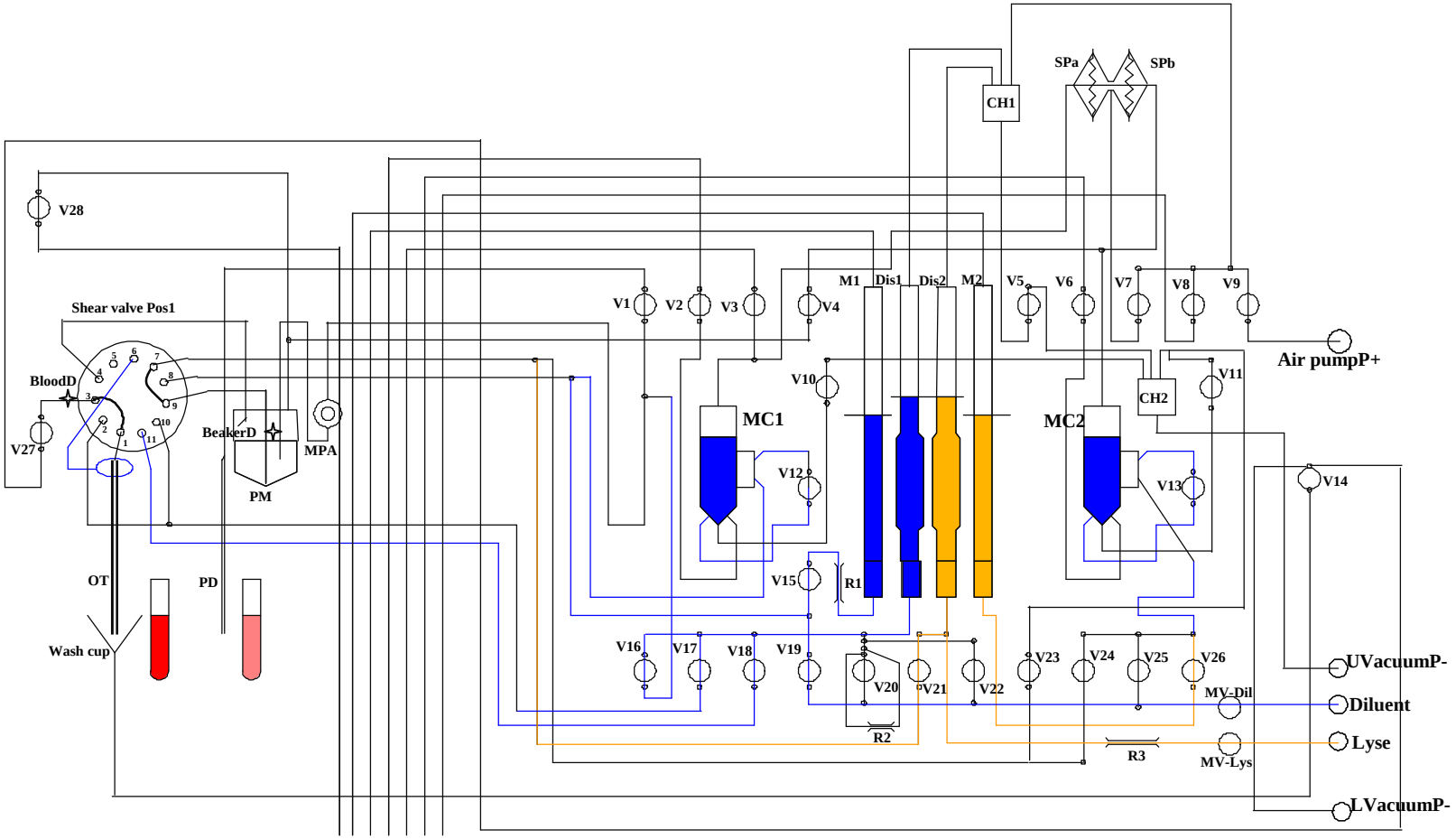
- P+ via Spa/b creates pressure in MC1/2, cells cross aperture, MC1 via V15, MC2 via V26, 270 ul counted
- P- fills reagent pipettes Dis1/Dis2. Dil: MV-dil, V20; Lyz: MV-Lyz

Wash after count



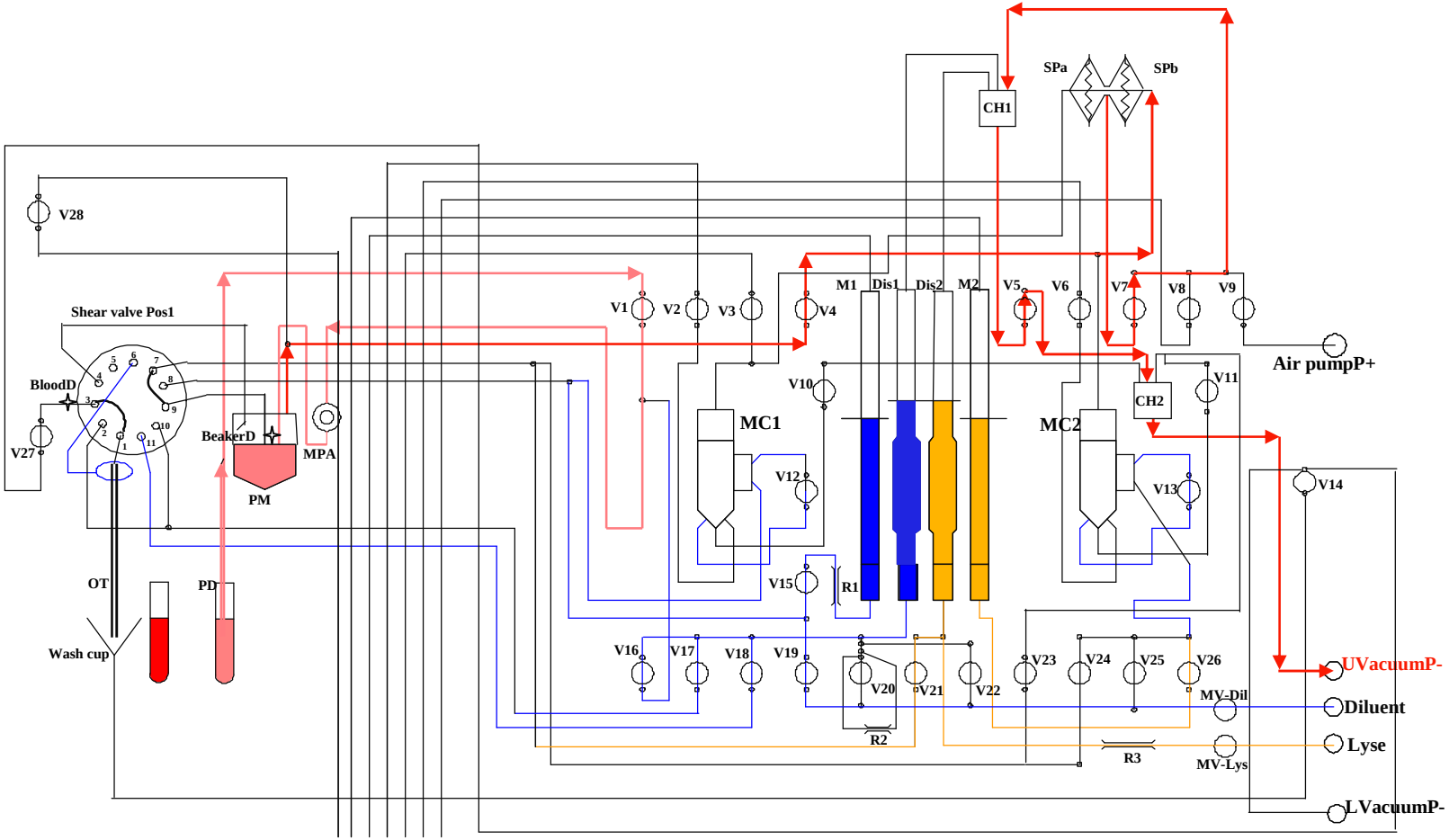
- MC1 empties through V10, CH2, P-, air vent from V3. MC2 empties through V11, CH2, P-, air vent from V4, V28. Vent line for MC1/2 are closed for a short time and vacuum are created. MC1 fills up with diluent through V19, V12. MC2 fills up with diluent through V25, V13

Ready for next analysis



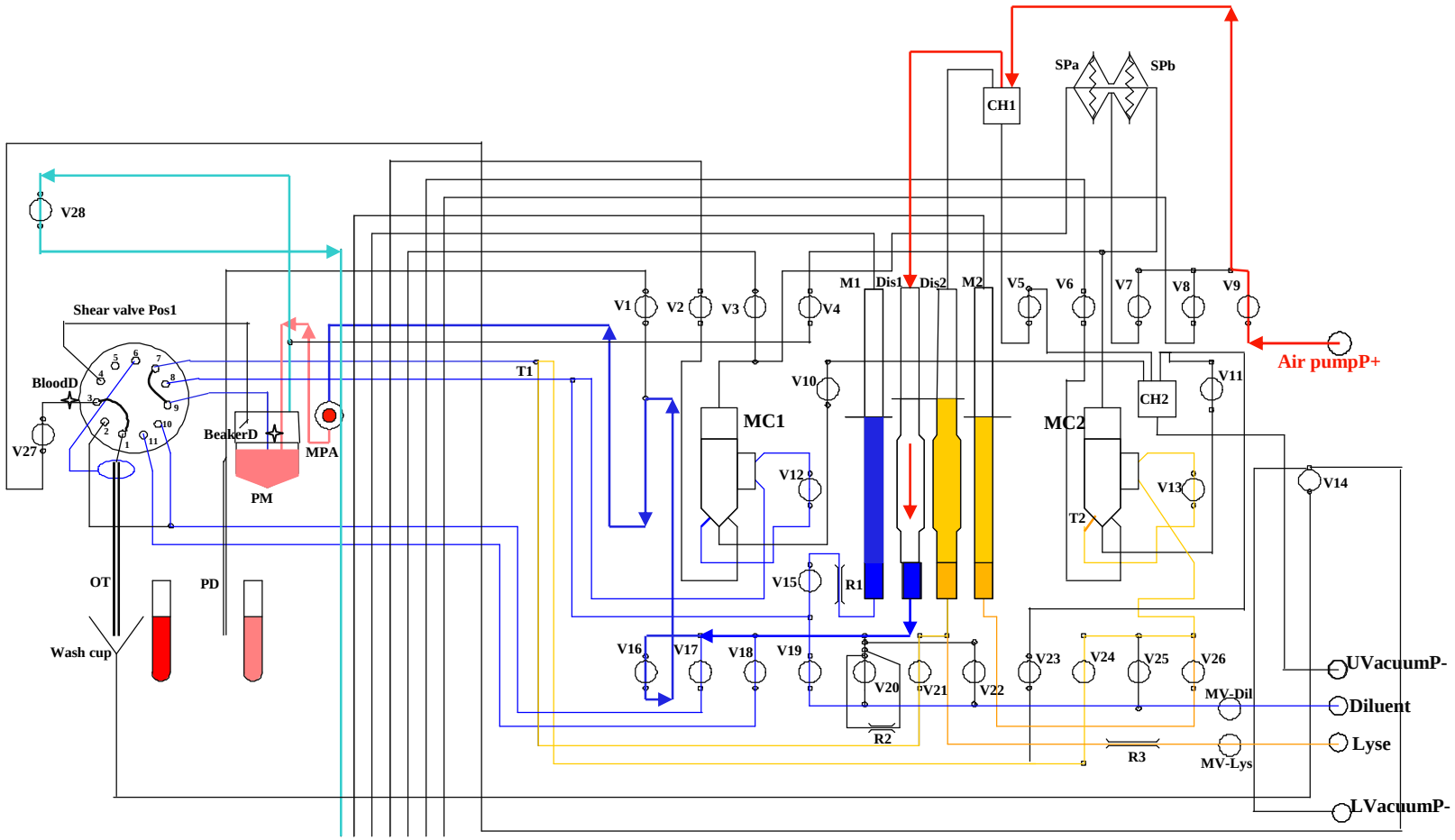
- After a cycle, instrument returns to initial state, ready for next analysis
- 4 pipettes full, 2 measuring chamber filled

PD sample aspiration (prediluted blood)



- P- creates vacuum in PM by loading SP via CH2, V5, CH1, V7, SP, V4
- PD blood sample directly aspirated in PM via V1, MPA,
- Proceeds to “Prepare for second dilution”

Run micro capillary sample (MPA)



- P+ pushes diluent from Dis1 to PM via V9, CH1, V16, MPA, bring blood sample in MPA to PM
- Proceeds to “prepare to second dilution”.