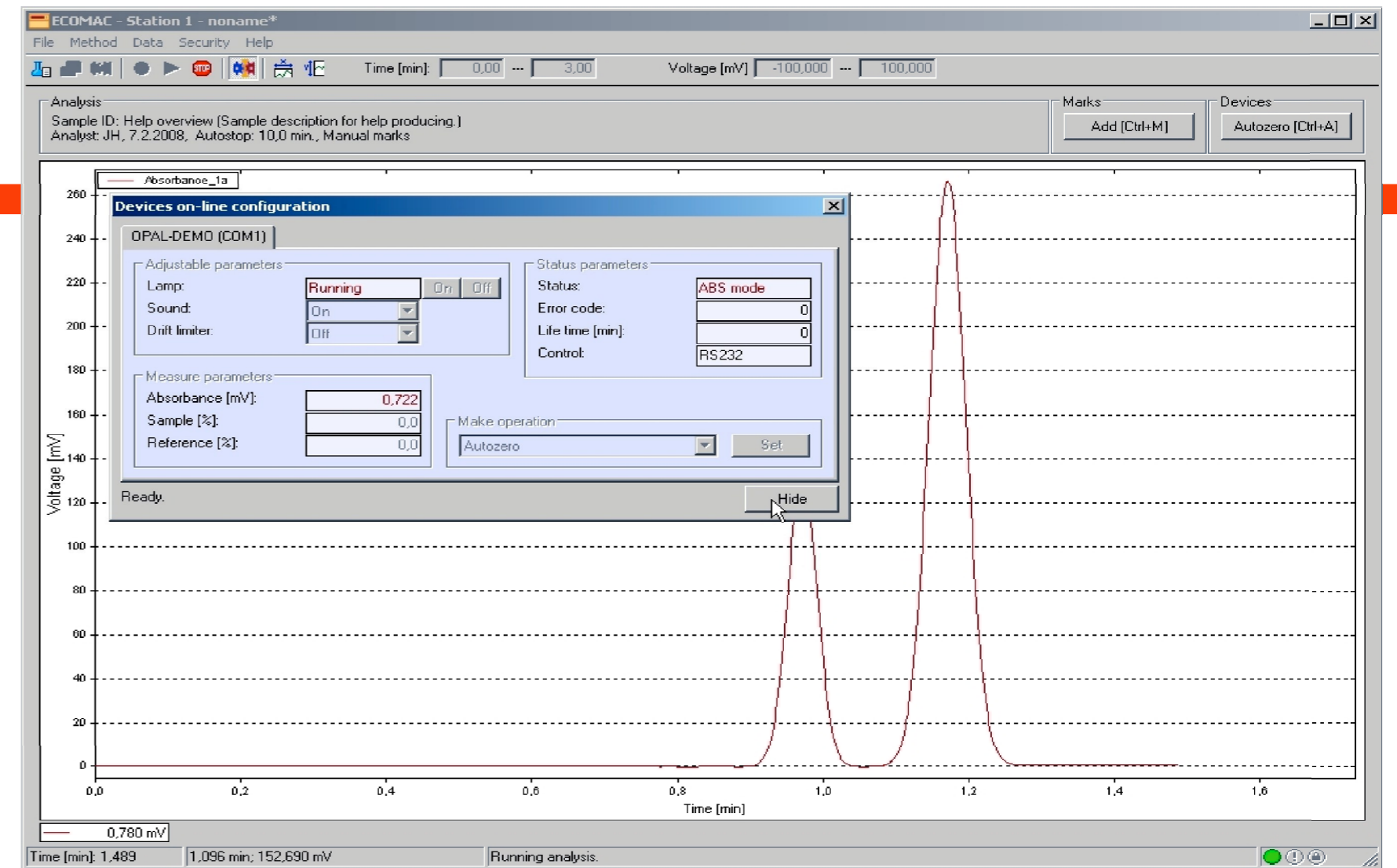
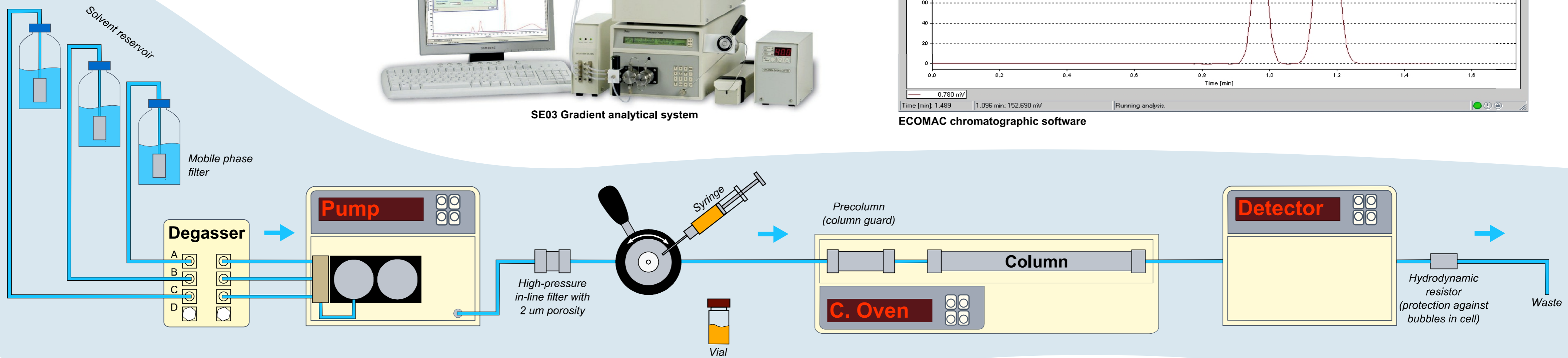




SE03 Gradient analytical system



ECOMAC chromatographic software



**Solvent degassing**  
removing of dissolved gasses

**DG 3014**  
on-line vacuum degasser



**Low pressure gradient**  
mixing of more different solvents on pump input during analysis

**BETA 10 gradient pump**  
- up to 10 ml/min.  
- up to 40 MPa operating pressure  
- ternary low pressure gradient



**Isocratic mode**  
one solvent without mixing

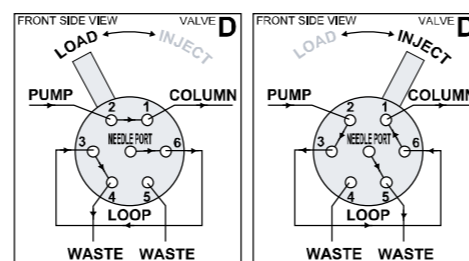
**ALPHA 10 isocratic pump**  
- up to 10 ml/min.  
- up to 40 MPa operating pressure



**Manual sample injection**  
microliters of liquid sample (typically 20 ul)



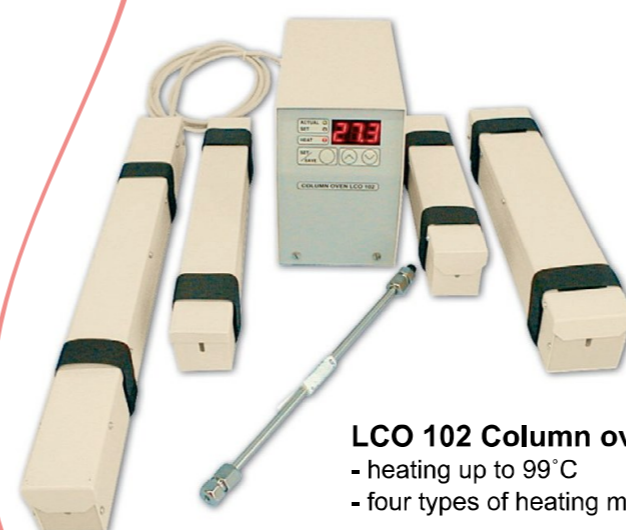
**VALVE D**  
analytical injection loop UNI  
- manual sample injection  
- starting switch  
- sample loops from 3 ul



**Automatic sample injection**  
automatically controlled sample injection by autosampler

**Column**  
variety of sorbents and dimensions depends on application

**Temperature control**  
stabilisation of retention times, analysis speed control and other features

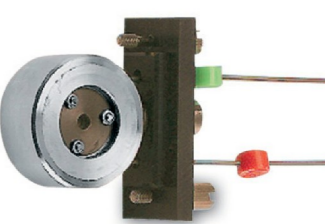


**LCO 102 Column oven family**  
- heating up to 99°C  
- four types of heating modules

**UV-VIS detection**  
light absorbance measurement, mostly used



**SAPPHIRE 800**  
variable wl. UV-VIS detector  
- from 190 nm to 800 nm  
- noise level  $\pm 0.5 \times 10^{-5}$  AU



**HPLC 04**  
analytical UV-VIS cell  
- 5 mm optical path length  
- 10 ul internal volume

**TOPAZ**  
dual variable wavelength UV detector  
- from 200 nm to 320 nm  
- two wavelengths simultaneously  
- DAD principle



**Other detection principles**  
refractive index detection, fluorescence detection, conductivity detection, MS - mass spectrometry, ELSD - evaporative light scattering detection, etc.