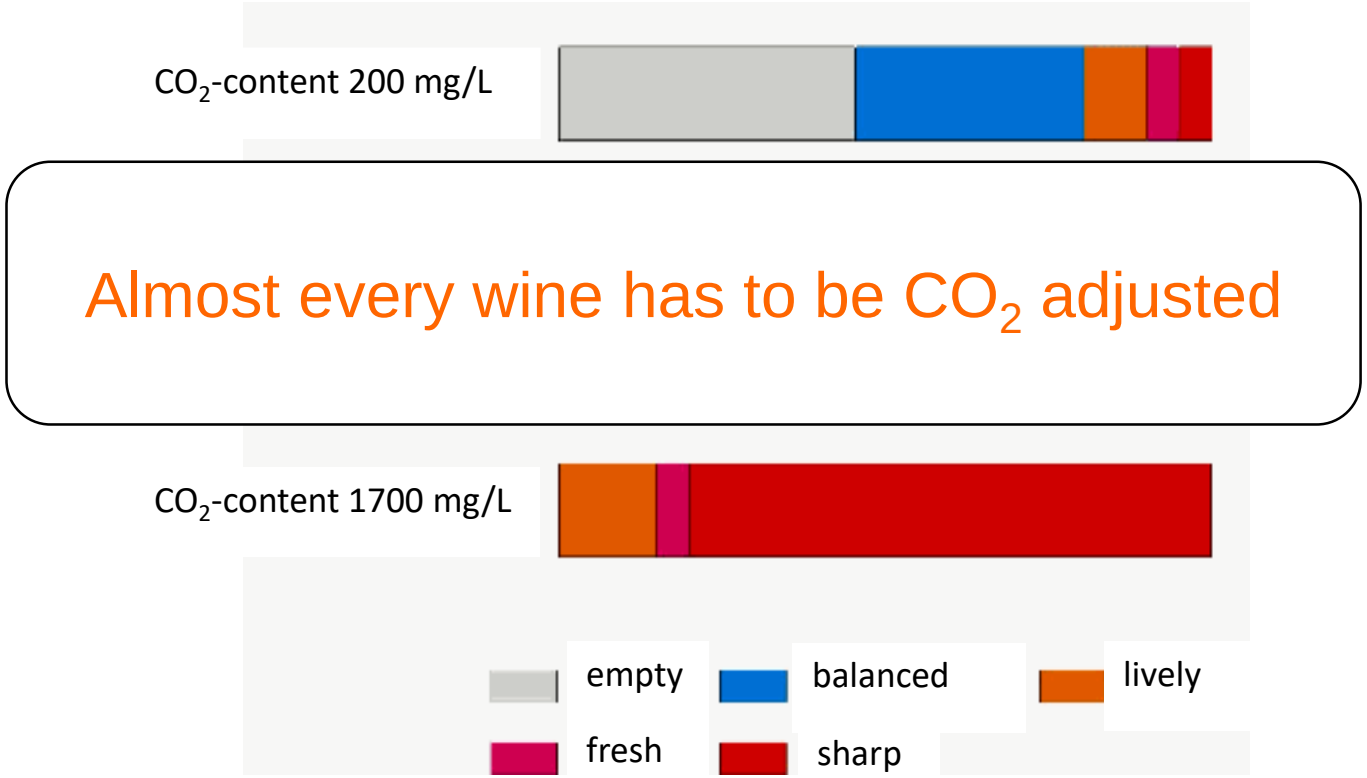
CO_2-Membran-System

Jochen Drück

Wine Engineering Association
Conference 2017

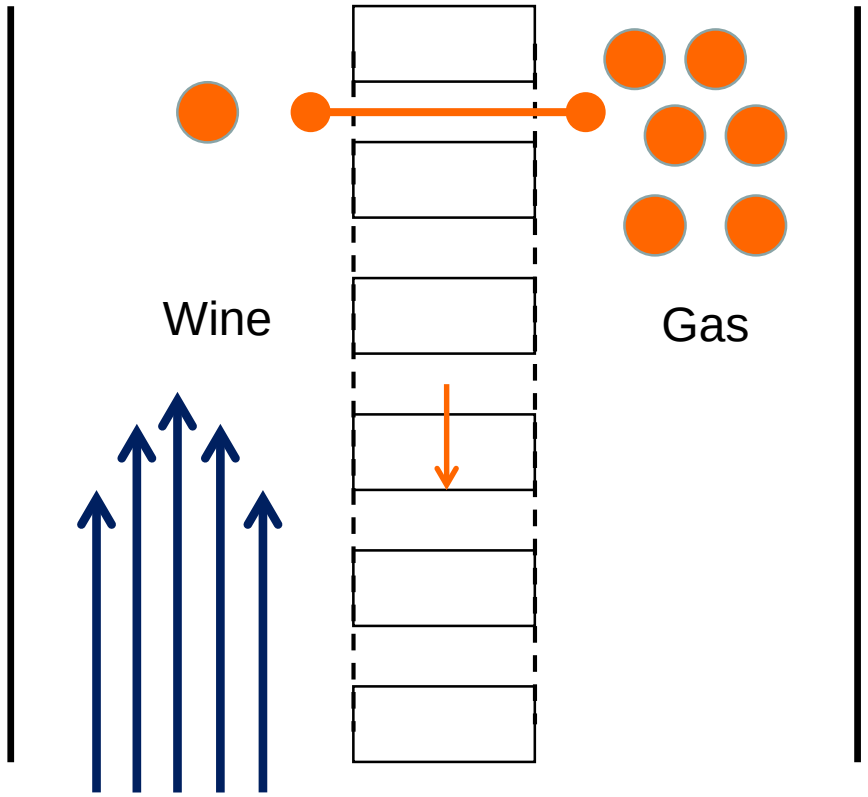
What is the desired CO_2 content in Wine?



German recomendations:

Wine type	Recommended CO_2
Young White	1.2 – 2.0 g/L
Rosé	1.2 – 2.0 g/L
Red Wine	<0.7 g/L
Semi- Sparkling	5.0 – 6.0 g/L
Full Sparkling	8.5 – 12.0 g/L

CO_2-Membran-System



Technology:

- Membrane permeable to gas
- Add or remove CO_2
- Remove O2 and N2 in the same pass
- bubbleless

Blank, Schmidt, Vidal: „Knoff Hoff – Membrananlagen zum Gasmanagement“

Das Deutsche Weinmagazin 28.9.2013

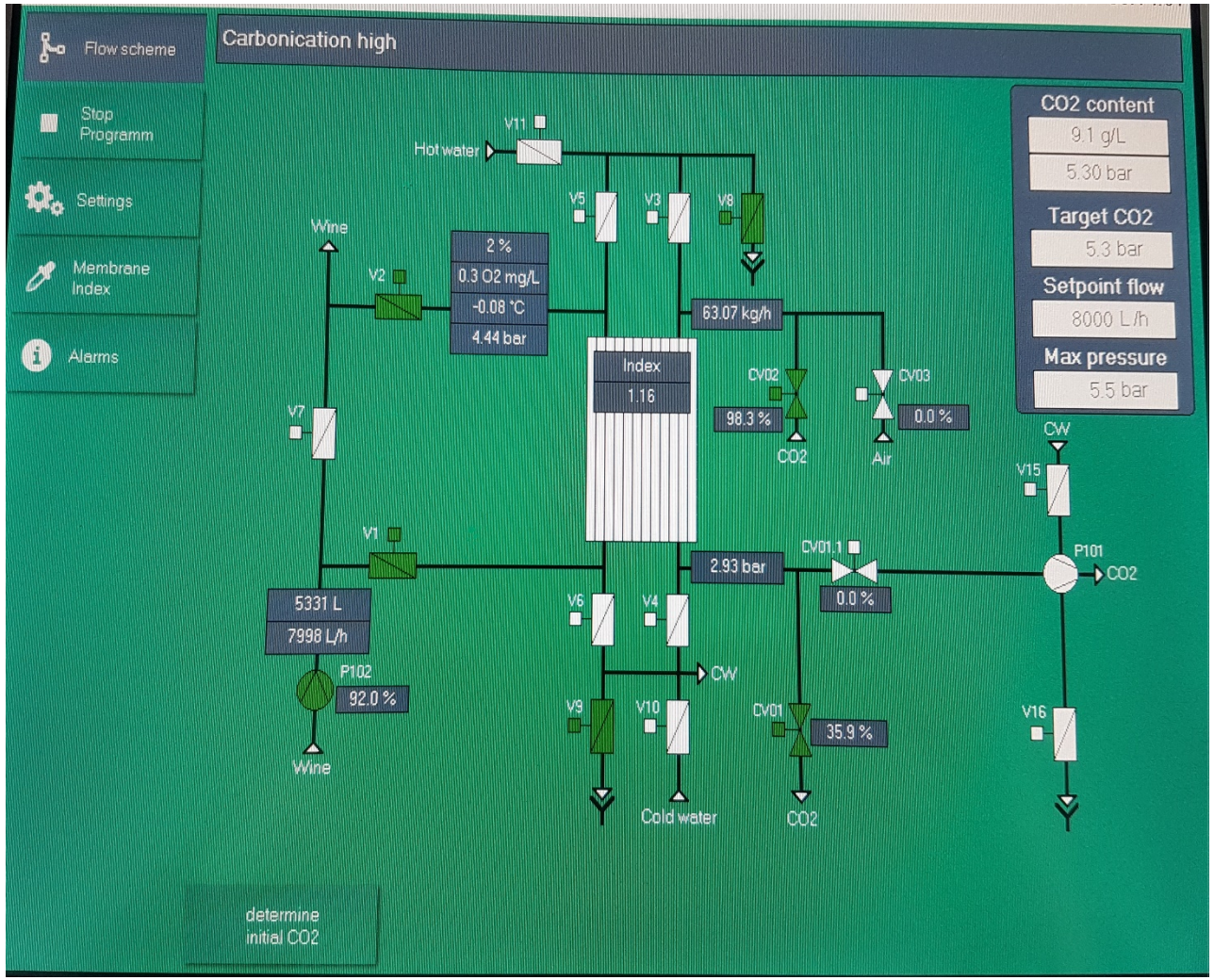
Properties CO_2 Membran System

CO_2 adjustment and carbonation

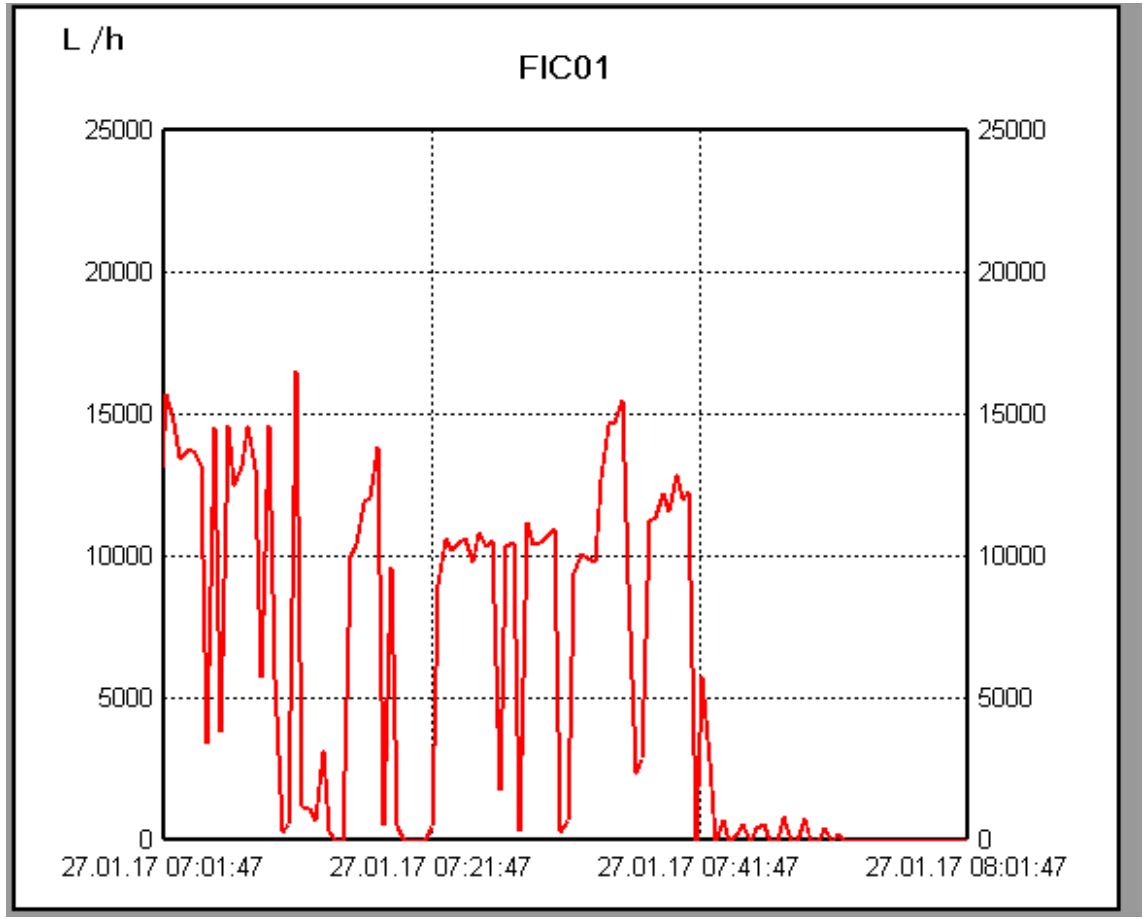
- Bubbleless CO_2 adjustment based on diffusion
- Carbonation and removal of other gases in one pass
- Higher filling speed due to less bubble formation
- Adjustment on target value, not simple addition!
- Oxygen and Nitrogen removal in the same pass
- Integrated physical control model
- Inline, directly serving the bottling line

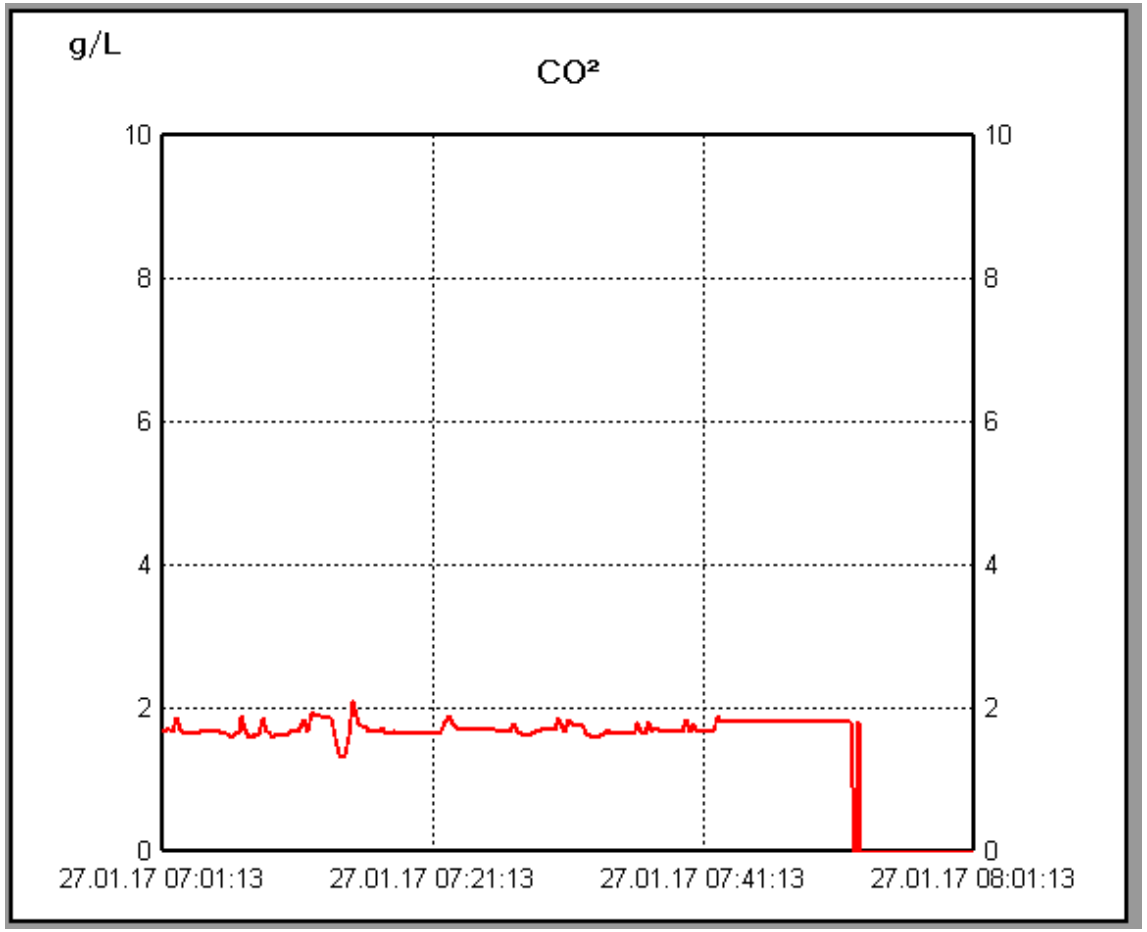
Case Study EDEKA Rheinberg

- Bottling facility with 50 Mio. bottles/year
- 2 bottling lines
  - Vacuum @ 10.000 L/h
  - Isobaric @ 18.000 L/h
- Installation in both lines increased average daily output by 10%.
  - Less foam
  - More precise CO_2 control
  - Less TPO → better shelf live
- Every bottle is CO_2 adjusted and O_2 removed



Precision of adjustment in white wine during filling





Thank you

New technology to perform automated CO_2 and O_2 adjustment in wines

- Improved bottling performance
- Easy to operate

➢ 50+ References in european bottling facilities

➢ Established technology in Europe

➢ Now available in Australia!

CO_2 Membrane System

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