

# HAFFMANS CPT

## CO<sub>2</sub> PURITY TESTER

### GENERAL PRODUCT INFORMATION

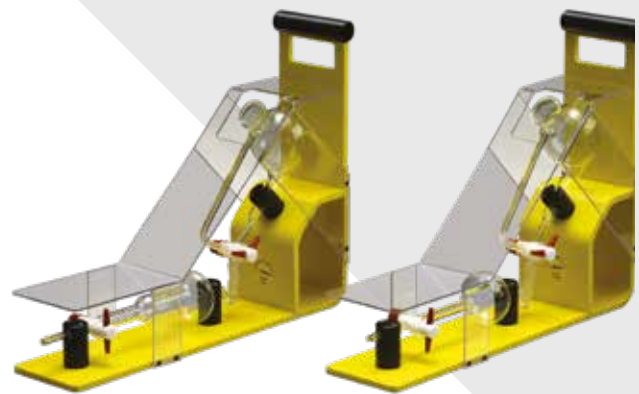
In the beer and beverage industries, the quality of carbon dioxide (CO<sub>2</sub>) is a determining factor in the product's quality and taste. A low oxygen (O<sub>2</sub>) content is crucial to avoid oxygen pickup in beverages. The CO<sub>2</sub> collected from fermentation is liquified in order to reduce the space needed for storage and to purify the CO<sub>2</sub> from non-condensable gases - O<sub>2</sub> and nitrogen (N<sub>2</sub>).

The CO<sub>2</sub> Purity Tester, type CPT, is used for routine controls of the air content of commercial CO<sub>2</sub> gas and CO<sub>2</sub> gas from fermentation. The principle is based on CO<sub>2</sub> absorption by caustic.

The measuring burette of the CPT is properly flushed with CO<sub>2</sub> gas. The CO<sub>2</sub> sample is separated in the measuring burette and the connection is made with the caustic burette. The CO<sub>2</sub> is completely absorbed by the caustic and the remaining gas volume is read on the scale of the measuring burette after turning the instrument on its backside.

Two executions are available:

- Type CPT 99-100, measuring burette scale from 99 - 100% v/v, for measuring the end purity of commercial CO<sub>2</sub> gas or CO<sub>2</sub> gas from fermentation after purification
- Type CPT 50-100, measuring burette scale from 50 - 100% v/v, for measuring the intake purity of CO<sub>2</sub> gas from fermentation



### CUSTOMER BENEFITS

- **Perfect product control**
- **Cost saving**
  - less labor intensive - multiple measurements without the need to remove caustic

### APPLICATIONS

- **Quality Control**
  - of gas distribution systems
  - of commercial gas
  - of incoming CO<sub>2</sub> gas from fermentation
  - of CO<sub>2</sub> recovered and purified from fermentation
  - in front of the carbonator to monitor the gas quality dosed
- **Optimizing CO<sub>2</sub> Recovery Plants**
  - behind the activated carbon filter/dryer
  - in the purge from the CO<sub>2</sub> liquefier to control the blow-off quantity automatically, preventing CO<sub>2</sub> loss as well as high concentrations of O<sub>2</sub> from dissolving CO<sub>2</sub>
  - behind the CO<sub>2</sub> evaporator to monitor O<sub>2</sub> in the CO<sub>2</sub> distribution system

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### TECHNICAL DATA

#### CPT 99 - 100%

##### Measuring range

99.0 - 100.0% v/v CO<sub>2</sub>

##### Graduated scale

99 - 100% 0.02% v/v foreign gas

##### Accuracy

99 - 100% 0.01%

#### CPT 50 - 100%

##### Measuring range

50.0 - 100.0% v/v CO<sub>2</sub>

##### Graduated scale

94 - 99.8% 0.1% v/v foreign gas

55 - 85% 2.0% v/v foreign gas

##### Accuracy

94 - 99.8% 0.05%

55 - 85% 1.0%

##### Volume

170 ml caustic solution

##### Caustic concentration

30% g/l NaOH with approx. 1% ethanol

30% g/l KOH with approx. 1% ethanol

##### Dimensions

430 x 110 x 330 (L x W x H mm)

##### Weight

Ca. 1 kg

### SCOPE OF SUPPLY

- CO<sub>2</sub> Purity Tester\*
  - Type CPT 99-100 or
  - Type CPT 50-100
- Instruction manual

\* When ordering, please state which instrument you require.

### OPTIONS

- Certificate of measurement



#### HAFFMANS B.V.

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