

# Ingenieurbüro Andreas Holl

Anlagenplanung - Ingenieurdienstleistungen - Schulungen - Consulting

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## Technical Gases Design – Operation - Maintenance

### Beschreibung

#### Technical Gases

- N2 – LN2 – Acetylene – Ammonia - O2 – H2
- Classification of gases
- Gas purity
- Safe handling of technical gases

#### Pressure vessels

- Hazards due to pressure
- Storage and transport of gas cylinders
- Recurring inspection of pressure vessels
- What to do in an emergency?

#### Safe handling of fluid system components

- Pressure regulator
- Gas cylinder connections DIN 477 200 / 300 bar
- Gas cylinders / bundle change (practical example)
- Safe handling of fittings and threads
- Selection, installation and handling of hoses
- Material compatibility

#### Acetylene

- Characteristics
- Corrosion - Material selection
- Requirements for tubes, valves, pressure regulators and fittings

#### Ammonia

- Characteristics
- Corrosion - Material selection

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- Requirements for tubes, valves, pressure regulators and fittings

## Hydrogen

- Characteristics
- Corrosion - Hydrogen Embrittlement
- Material selection for sealing materials
- Requirements for tubes, valves, pressure regulators and fittings

## Oxygen

- Properties
- Requirements for tubes, valves, pressure regulators and fittings
- Material Selection
- Sealing materials
- Oxygen Cleaning
- Assembly regulations

## Technically permanently tight

- Definition according to TRBS 2141
- Assessment according to technically permanently tight per TRGS 500