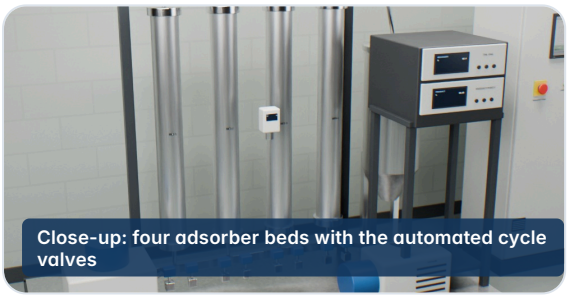
PRODUCT DATASHEET

Pressure Swing Adsorption (PSA / VPSA) Test Unit

Two- to four-bed PSA, VPSA and TSA test unit for CO_2, H_2, biogas, N_2 and O_2 cycles

Product page





Close-up: four adsorber beds with the automated cycle valves

OVERVIEW

The Tech Inc. Pressure Swing Adsorption (PSA / VPSA) Test Unit runs complete pressure swing adsorption cycles on your adsorbent, so purity, recovery and productivity can be measured before a plant is designed. Two to four adsorber beds are connected by automated valves; the controller steps them through pressurisation, adsorption, pressure equalisation, blowdown, purge and, in vacuum swing, evacuation.

TYPICAL DESIGN DATA

Beds	Two to four columns; bed size to order; temperature sensors along each bed
Cycle	Programmable steps: pressurise, adsorb, equalise, blow down, purge, evacuate
Pressure	Feed pressure and vacuum levels to order
Codes and standards	PED 2014/68/EU or ASME B31.3 for pressure parts as required; CE marking
Gases	CO_2, N_2, CH_4, H_2 and air mixtures; others on request
Analysis	Product and tail-gas analysers; mass spectrometer option
Results	Purity, recovery and productivity per cycle, with bed pressure and temperature profiles

MODELS AND CAPACITIES

- **TI-PSA-2** – two-bed unit
- **TI-PSA-4** – four-bed unit with pressure equalisation
- **TI-PSA-T** – unit with heated beds for TSA

Units are built to the number of beds, bed size, gases and pressures you need.

ORDERING CODE

Example **TI-PSA-4**: **4** number of beds: 2 or 4; T for heated beds.

SCOPE OF SUPPLY

Included: factory acceptance test with a written report; drawings for approval, material certificates and manual. **Options:** heated beds for TSA; mass spectrometer; additional beds; ex build; installation, commissioning and operator training.

KEY ADVANTAGES

- **Real cycles** – purity and recovery, not just capacity
- **Two to four beds** – equalisation steps for better recovery
- **Cycle editor** – new step sequences from the HMI
- **Vacuum or temperature** – VPSA and TSA options

Designed and built by Tech Inc. · **Part of the Davey Group since 1990**

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