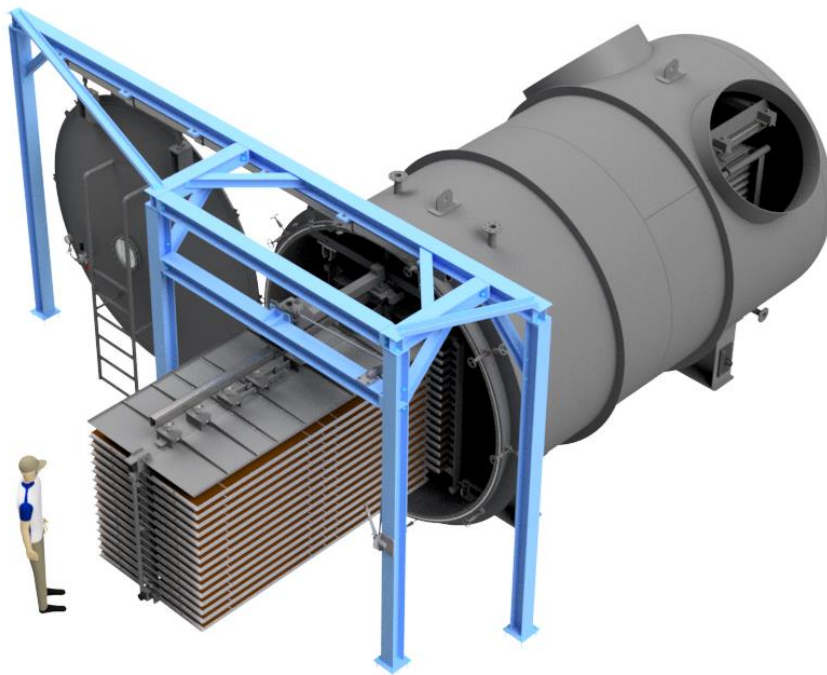


DEVEX CVD 400

CANNABIS - **V**ACUUM - **D**RYER



Gently drying of cannabis biomass.

Features: Low temperature treatment, in order to keep most ingredients as possible.

Adjustable drying profile.

Throughput up to 1.000kg per day

THE ULTIMATE CANNABIS PROCESS

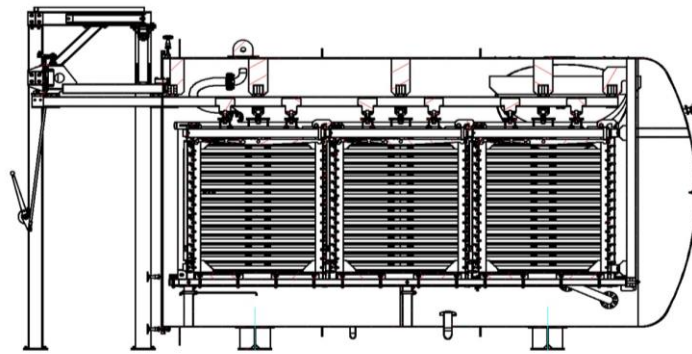
MADE IN GERMANY

1 DEVEX CVD 400

Cannabis biomass is gently dried in the DEVEX CVD under vacuum conditions. Thanks to its high flexibility, plant parameters can be pre-set in order to have a controlled heat impact on the cannabis biomass.

In order to achieve this, the DEVEX CVD provides the following key features:

- Proven DEVEX technology, over 20 years of experience
- Multi-flexible product heat treatment during drying via radiation heating and DEVEX trays
- Fully automatic controlled drying process (time, temperature, vacuum level)
- Less building height required, tray filling, transport, unloading and utilities on 1 level



Side view DEVEX CVD 400

Before the drying process is started, the cannabis biomass is conditioned inside the trays and the trays will be moved (with a special railing system) in the DEVEX CVD. Afterwards the DEVEX CVD is evacuated to the required vacuum level (10mbara) and the heating modules beginning to heat up the cannabis biomass indirect. The moisture inside the cannabis biomass begins to evaporate at 7°C. The vapours will be sucked off by vacuum pump and will be collected outside the DEVEX CVD in a condenser. During the drying process the temperature of the cannabis biomass is constantly monitored in order to guarantee a gently drying of the cannabis biomass.



Front view DEVEX CVD 400/ 800

2 Materials

All parts in contact with product: AISI 316, 316L, 316Ti
Other parts: AISI 304 or equal

3 Technical data/ Performance data

Product data and design criteria

- Moisture content fresh cannabis biomass 67%
- Total solid content fresh cannabis biomass 33%
- Density 130kg/m³
- Total solid content dry cannabis biomass > 95%
- **Dry biomass output up to 400kg/ 24h, < 5% moisture**

Process data

- Number of batches per day (24h operation) 3
- Amount of fresh cannabis biomass per batch approx. 350kg (1.050kg/ day)
- Amount of dry cannabis biomass per batch approx. 134kg (402kg/ day)
- Vacuum level 10 mbar abs.
- Max. filling height of trays 40mm
- Max. product temperature approx. 35°C

The effective process data can vary, depending on the cannabis biomass and filling height of the trays.

4 DEVEX GMP documentation

GMP documentation according to the DEVEX GMP standard, which is conducted to the European GMP guidelines.

5 Utilities consumption

The given consumptions are guidelines, the actually requirement can be varying.

- Saturated steam for process 6 barg pressure approx. 213 kg/h
- Chilled water 3 barg; 1,6m³/h; 6°C in; 12°C out
- Cooling water 3 barg; 20m³/h; 28°C in; 38°C out
- Compressed air 8 barg, dry, oil-free, instrument quality
- Process water Drinking water quality
- Electricity 3x400 V/ N/ PE, 50Hz, tolerance Voltage +10%/ -6%TNS-Net form, 3 Phase/ N/ PE (5 Wire) installed capacity approx. 30 KW

6 The DEVEX Plus

Benefit from DEVEX's 20+ years of experience in the drying business!
DEVEX is the reliable partner in the cannabis/hemp industry, from fresh biomass to saleable product.
DEVEX supports in:

- Designing suitable processes along the value stream from fresh cannabis/hemp biomass to distilled oil
- Planning of production facilities
- Integration of CVD and further process equipment in a facility layout
- Planning of special areas, clean areas, or access-controlled areas
- Integrate further downstream processes after drying with its partner network
- Processing GMP documentation and certification with its partner network
- Managing maintenance services and spare parts supply
- Applications to local authorities
- Training the local staff in handling the machines

DEVEX will be at your side from the first idea to successful production (during the whole lifecycle of the machines).

7 Budget and terms

DEVEX CVD 400

price on request

Commercial Terms: to be negotiated

Delivery time: approx. 10 months

Shipment conditions: FCA acc. to Incoterms 2020

Delivery Exclusions:

DEVEX excludes from the scope of supply any equipment or engineering not specifically mentioned in this proposal. We would like to especially draw your attention to the following exclusions or ancillary equipment to be supplied by the customer.

Our proposal does not include:

- Any civil works
- Intermediate storage tanks, raw material and product storage tanks, unless specified
- Exhaust gas and waste water handling
- Mechanical and electrical installation on site
- Supports, platforms, stairs and railing, unless specified
- Insulation and insulation material, unless specified
- Main electrical power supply
- Low voltage distribution
- Any utilities
- Cables and cable ducts
- CIP cleaning equipment
- Unloading and storage of the equipment according to the Seller's instructions and marking, assembly tools, cranes, and lifting gears
- Taxes, customs duties, public charges etc. – all costs outside Germany unless specified
- Spare and wear parts

We hope this handout will meet your requirements and look forward to hearing from you. Discover all other DEVEX solutions for the cannabis industry as well, e.g. extraction and distilling solutions.

Please do not hesitate to contact us for any questions you may have.

Yours sincerely,

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