

### **ITALVACUUM COSMODRY SYSTEM IHD 3200 - PADDLE DRYER**



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SKU: 12261 | Categories: <u>Dryer</u>, <u>Paddle dryer</u>

#### PRODUCT DESCRIPTION

// Equipment dismantled and stored in our warehouse //

Manufacturer: Italvacuum

Model: Cosmodry System IHD 3200

Year: 2016

Type: horizontal vacuum paddle dryer

Application: drying wet powders

ATEX (Eex) unit: yes

Industries: Fine chemicals, pharmaceuticals (API), intermediates

A) Agitation: Concentric agitator with heated shaft, removable in several segments (double

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mechanical seal)

Transmission: (CEMP) - Power 30 kW + Gearbox + Chain

Agitation speed: 1.6 ÷ 8.1 rpm Atex: explosion-proof ATEX II 2GD

Mounted with the dryer on a support structure (single SKID)

B) Drying chamber with discharge valve

Total volume: 3200 Liters
Useful volume: 30% - 80%
Internal pressure: -1 / 0,5 barg
Jacket pressure: 0 / 1,7 barg
Preject temperature: 10 / 130

Project temperature : -10 / +130°C

Maximum heating fluid temperature: +100°C

Best vacuum tightness: 4 mbar/h EX-I absolute pressure transmitter PT100 Ex-i product temperature sensor

Nitrogen backwash system

Rotary chopper speed: 300 / 1200 rpm (not installed)

Material in contact with the product: AISI 316L - EN 1.4404

Vacuum seals: PTFE and FEP

Jacket material: AISI 304 - EN 1.4301

Heating fluid: Diathermic oil

Mirror-polished interior finish (Ra  $\leq$  0.4 µm)

Satin exterior finish (Ra  $\leq 1.2 \mu m$ ) Inspection and Shut-off Valve DN.1650

Buffer Relief Valve DN 200/300 DN 250 Butterfly Loading Valve

Prepared for the installation of two choppers (lateral knives)

C) Process filter

D) Vacuum unit: SAURUS939 piston vacuum pump, model VVDPump support benchATEX: Exd-IIB-T4 – IP55Power: 11 kWAtmospheric pressure surface condenser, model VD200I

E) Vacuum condensing unit

- AISI 316L stainless steel with double cooling jacket in AISI 304 stainless steel.

Internal design pressure: -1 / 0.5 barg Jacket design pressure: 0 / 3 barg Design temperature: -10 / 40 °C

Maximum cooling liquid pressure: 2.5 bar

Exchange surface area: 8.5 m2

Condensate collection capacity: 900 litres

Level sensor

F) External safety filter

G) Temperature control system: Heating/Cooling



Steam liquid heater: Pressure 7 bar - Jacket temperature: 142°C - Surface area: 1.65 m2 Cooler, mounted on the heater: cold water or brine - Pipe jacket pressure: 12 barg - Jacket temperature: 142°C - Pipe temperature: -10°C /+ 99°C - Surface area: 3.42 m2

H) Command and Control System (Electrical Cabinet + HMI)

Complete technical file























