


Candi™ Bulk Pyrophoric



The Candi™ Bulk Pyrophoric system is designed to provide end users with a continuous supply of a pyrophoric liquid precursor from a high volume bulk source delivered at a steady pressure.

Applications

Typical applications: liquid precursor supply to bubbler vaporizer on-board buffer canister. Possible precursors:

- TMA
- TMGa
- DEZ
- Other pyrophoric precursor

Operation

Pressurized inert gas is used to transfer a precursor from one or two shuttle canisters to an internal day tank and from this day tank to the tool. Both the day tank and the second shuttle tank when applicable allow the continuous dispense of the chemical during a shuttle canister change-out.

The patented Candi™ purge, which uses gas compression and cycles, ensures a safe shuttle canister change-out and prevents precursor from contamination.

 Active safety features, specific recommendations for on-site installation and specific bulk distribution features ensure a reliable and cost efficient distribution of the precursor to the process.

Qualification

The Candi™ is qualified by most tool manufacturers:

- Referenced on multiple OEMs platforms
- Pre-defined interfacing with multiple OEMs



Product description

Features

- Precise delivery pressure control ($\pm 50\text{mbar}$)
- Adaptable to any SEMI-compliant shuttle canister up to 1,500L
- Form 29L to 120L day tank
- Patented back-up mode for improved reliability
- Smart empty control for maximal chemical usage
- Chemical purge sequence validated with pyrophoric chemicals
- PLC based technology with 10" color touch screen HMI
- Ethernet communication port for SCADA monitoring
- Customized signal interface

Options

- On-board abatement system (liquid sealant tank and knock-out tank on vent line)
- On-board vacuum pump
- Pigtails heating
- Supply of the weight scales for the shuttle tanks
- Valve Manifold Boxes (VMB) for distribution to multiple points of use
- Different communication protocols available

Reliability

- MTBF*: > 10,000 hours
- Uptime: 99.99%

*Mean Time Between Failures

Safety features

- Nitrogen deluge, automatic exhaust damper and drain line
- Fully automatic distribution and canister change-out sequences
- Easy to reach "Emergency Machine Off" button
- Standard exhaust flow alarm
- Fire and leak detection
- Individual pressure switch and relief valve on pressurized lines
- Timers for pressurization/depressurization of each tank, for day tank refill
- Precise alarm messages
- Reduced operator intervention
- Critical functions protected by multi-level password

Technical specifications

Utility requirements

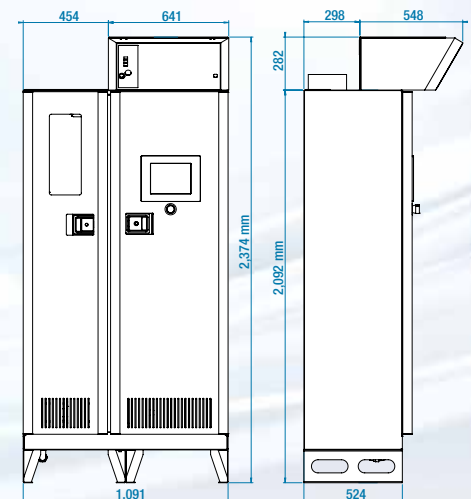
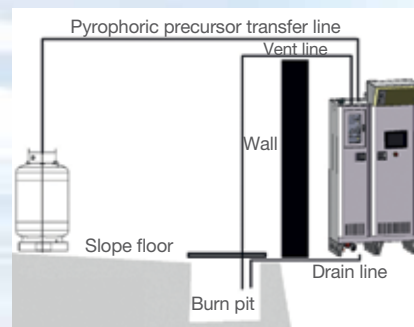
Nitrogen	7barg, UHP, min-max: 3-10Nm ³ /h
Pneumatics	7barg, min-max: 2-5Nm ³ /h
Vacuum	< 2Torr
Power	110-240 VAC, 50/60Hz UPS, 1kVA

Certifications

- CE Mark
- Optional SELO or ASME certification for pressurized tanks

Process data

Liquid chemical maximum flow rate: 3.8slpm when working at Candi™ maximum pressure of 5barg



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