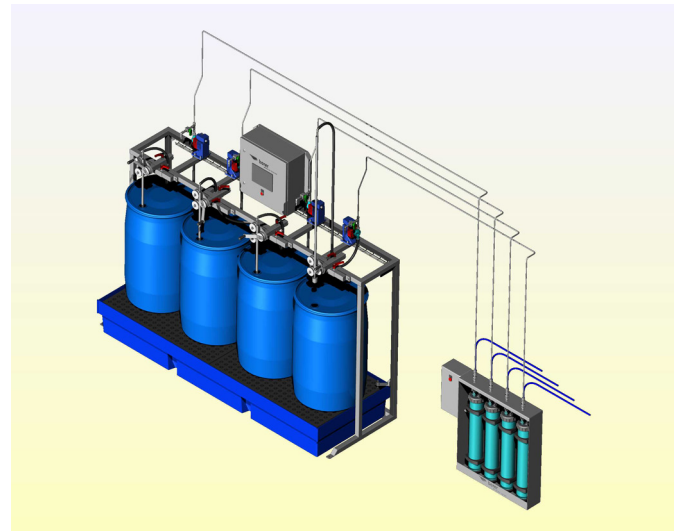


Borer PCDS-Premium

PCDS Premium Specification Sheet

Central Delivery System for Process Chemicals



Introduction

The purpose of a central delivery system for process chemicals is to supply a constant, uninterrupted flow of process chemicals to the washer-disinfectors (WDs) connected to the system. A pump module conveys the process chemicals from product drums to the hoppers. The WD pumps take the process chemicals directly from the hoppers. The PCDS monitors the product level in the hoppers and ensures that the hoppers never run out of product.

A WD takes an average of 250 ml (approx.) up to a maximum of 0.5 litres (approx.) of each process chemical from a hopper during a one-hour (approx.) cycle. Usually, a WD takes between 1 and 4 different process chemicals from different hoppers in a single cycle.

The pump station or pump module is not usually installed in the same room as the WDs. The hoppers or hopper modules, on the other hand, are usually located close to the WDs. In some cases, the hoppers or hopper modules in more than one room have to be operated from a single pump station.

Usually five WDs are used to draw a chemical from the same hopper. The maximum permitted number of WDs drawing chemical from the same hopper is ten. One pump at the pump station only ever serves one hopper. A typical system comprises 4 pumps and 4 hoppers. The possible number of pumps and hoppers range from a minimum of one to a maximum of four.

System description

The system conveys process chemicals from a drum (e.g. a 220 l barrel) to the hoppers. The mechanical components of the pump station comprise an apparatus rack, which can hold between one and four pumps and the same number of suction lances. The suction lances are attached to the apparatus rack in such a way that they can be moved along the X, Y and Z axes.

The hoppers are grouped together in a compact module which incorporates a spill tray. The hopper module is floor-mounted and in the same room as the WDs. Up to 10 WDs can be connected to one hopper containing process chemicals.

Technical specifications

Central delivery system for process chemicals comprising:

1. Switch cabinet for 1 to 16 pumps and hoppers

1.1. Main cabinet

- Chrome steel cabinet, IP66, fitted to pump rack
- Controller for 1 to 16 feed pumps for conveying process chemicals
- Level sensor in storage drums showing absolute and percentage level (100% = full).
- Information via email about fill level in storage drum in % (preset at 30%)
- Controller for external flashing light
- Level inputs for 1 to 16 analogue suction lances
- Bus connection between main control cabinet and hopper module
- One floating output for external empty/fault alert per product (choice of NO or NC contacts).
- Settings can be changed on the controller display
- Integrated web server for full display of system on PC
- Optional: GSM modem and aerial for alerts via telephone (pager/SMS)
- Electrical fuse 230 V AC 16A
- Controller instruction manual available in German, French, Spanish or English
- Circuit diagram (project-specific)
- Switch cabinet dimensions: HxWxD 500 x 500 x 210 mm

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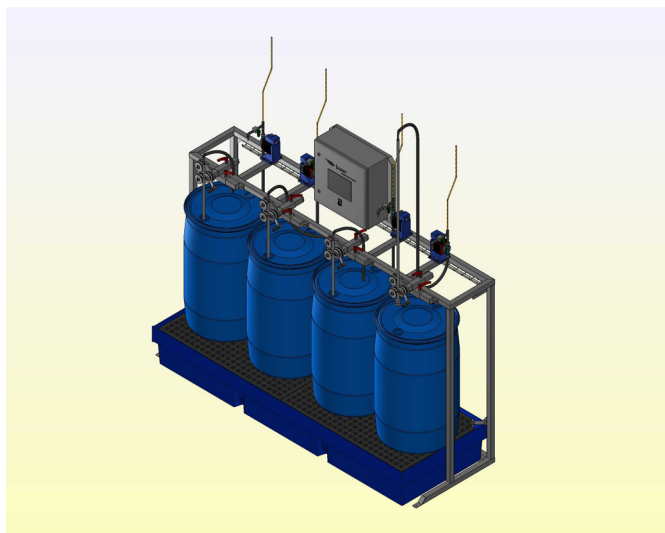
1.2. Hopper junction box

- Plastic housing, IP66, fully assembled on hopper spill tray
- Hopper monitor and level control, stainless steel floating switches transmit a total of 3 signals to the controller
- Hopper overflow protection monitor, mini floating switch with one switching point
- LED round 22 mm (red), fitted to lid
- Bus connection to main controller for complete data communication
- Housing dimensions: HxWxD 400 x 200 x 135 mm
- One floating output for external empty/fault alert (choice of NO or NC contacts)

2. Pump station for 1 to 4 process chemicals

2.1. Racks

- Complete rack made of CrNi steel with 2 or 4 extraction points
- Rack can be fixed to ground and wall
- Suction lance bracket adjustable in X,Y and Z axes (optional without suction lance bracket)
- Mount for control cabinet
- 1-4 feed pumps 230 V, delivery capacity: 7.8 l/h at 7.0 bar
- 1-4 analogue suction lances for 25 l - 220 l drums
- Finish: bead blasted
- Dimensions of 4-pump station with spill tray incl. control cabinet: WxHxD 2500 x 2850 x 815 mm
- Dimensions of 2-pump station: WxHxD 1300 x 2850 x 815 mm

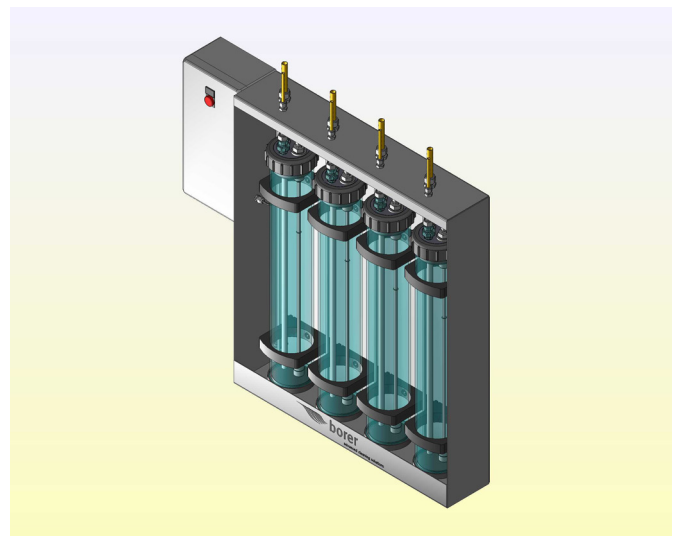


2.2. Optional: spill tray with grid (PE)

- Tray can be inserted at floor level between rack legs
- Space for up to four 220 l barrels
- Floating switch fitted to apparatus rack
- Colour: blue plastic
- Dimensions: WxHxD 2400 x 285 x 815mm

3. Hopper module

- 1-4 hoppers installed in CrNi sheet steel housing with spill tray
- Floating switch fitted in tray
- PVC hopper with screw-off lid, 5 l nominal volume
- Stainless steel level sensors with 3 switching points
- Control unit fitted at top front
- Designed for connection of 1-10 WDs
- Finish: bead blasted
- Dimensions of 4 pumps: WxHxD 950 x 860 x 152 mm (width with control unit)
- Dimensions of 2 pumps: WxHxD 610 x 860 x 152 mm



4. External fault alerts

- Fault display (flashing warning light)
- Entire system illustrated on display
- Display also possible on external PC (web server is integrated).