

# Albany RR300 Clean

- Cleanroom suitability certified by Fraunhofer Institute
- Fulfills international standards and guidelines for cleanroom applications in accordance with DIN EN ISO 14644-1 and GMP
- ISO Class 5, GMP Class C
- Low particle emission
- Low air exchange thanks to fast opening and closing speed



SWISS/CCS



## DOOR DESIGN

The entire door (side frame, motor and roll cover, and bottom profile) is made from stainless steel. The smooth surface facilitates easy cleaning and avoids the accumulation of particle deposits.



## NARROW SIDE COLUMNS / MINIMAL GAP

The dimensions of the door's side columns are kept to a minimum and allow the door to be installed in confined areas. The extremely small gap of the door curtain guide ensures minimal pressure loss.



## CABLE GUIDE SEALING

To prevent pressure losses, the cable guide is integrated and access openings inside the door are sealed.



## DOOR CURTAIN

The door curtain consists of PVC with white fabric reinforcement strips. Fabric reinforcement strips in a wide variety of RAL colors are available as option.



## BOTTOM PROFILE

There is only a small gap between the bottom profile and the side columns. This minimises the pressure loss when the door is closed.



## SAFETY FEATURES

The door is equipped with an electrical safety contact edge. A contactless pre-running safety photocell is available as option. In addition the door is equipped with a door line photocell which prevents the door from closing when an object is in the doorway.



## INTEGRATED CABLE GUIDE

The cables are located in the side columns to provide a smooth surface and avoid surface irregularities that increase particle turbulence.

The supply cables of the pre-running safety photocell and ten electrical safety contact edge are guided reliably by internal cable carrier chain.



## INTEGRATED TRAFFIC LIGHT IN THE SIDE COLUMNS

It is possible to signal the movement of the door via a traffic light system which can be inserted into either both side columns or just one side column.

A yellow flashing light, a stationary red/green light is available or a traffic light in separate stainless steel housing could be installed opposite. A red/green traffic light with recognition of direction is possible.



## TOP ROLL COVER / MOTOR COVER

The door is equipped with top roll cover and motor cover as standard.



## FREQUENCY CONVERTER CONTROL SYSTEM

The Albany MCC frequency converter control system and the optional UPS battery are located in a compact sealed compartment under the top roll cover.



## MOTOR POSITION

The motor can be fitted either on the right or on the left hand side.



## CONTROL UNIT AND MAIN SWITCH

The display unit with its user-friendly foil keypad and graphic display and the main switch are integrated in the side column.



## EGRESS

Self opening is available as an option. The UPS battery supplies power to the door control system in case of a power failure. UPS error and diagnostic messages are indicated by LEDs.



## CONTACTLESS ACTUATOR

An optional contactless actuator is available for fast, hygienic opening.



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## Albany Rapid Roll 300 Clean

DW: 1000-3500 mm

DH: 1000 -3500 mm

Side frames: Stainless steel

Control: MCC – Integrated underneath covers

Opening/Closing speed: 2,0/1,0 m/s

Low leakage (max. 20m<sup>3</sup>/h at a pressure difference of 25 Pa and door size of 3 m<sup>2</sup>)

Suitable for cleanrooms with pressure differences up to 50 Pa

Isolation in accordance with DIN EN **ISO 14644-1 Class 5**

Design in accordance with **GMP Class C**

2 Safeties: Contact edge/Pre-running photocells and door-line photocell

Motor and top roll cover included



Fraunhofer

TESTED<sup>®</sup>  
DEVICE

Albany Door Systems  
RapidRoll Clean  
Report No. AL 1003-514

A close-up photograph of a rectangular door material sample. The material has a fine, vertical brushed metal texture, characteristic of stainless steel. The background is a light, abstract geometric pattern.

## DOOR MATERIAL

The entire door (side frame, motor and barrel cover, bottom profile) is made of stainless steel with a minimum surface roughness. The extremely smooth surface facilitates easy cleaning and prevents the accumulation of particle deposits.





### **Narrow side columns / minimum gap**

The ultra tight gap of only 5 mm fits closely to the curtain minimising pressure loss and particle emissions due to friction. The slim columns allow the door to be installed in areas tight on valuable production space and provide for a sleek appealing design.



## Side Frame

- Compact design
- Including factory sealings
- Pre-assembled



## Bottom profile

Is guided by special long life sliders designed to only leave a small gap between the bottom profile and the side columns. The elongated sealing lip is preformed in the correct position to fit your pressurised area.



## Bottom Profile

- Long life time sliders
- Pre-formed lip



## Integrated cabling

Cables are located inside the side columns to guarantee a flush external surface and avoid the spread of particulate dust due to cable movement.

The supply cables of the contact strip are guided reliably by an internal cable chain.







### **Internal Sealings**

All openings are internally sealed off to prevent pressure loss and insure the sleek but effective design. The main power supply membrane is the only visible cable sealing.





Stainless steel motor and barrel covers 45 °  
graded.





## Frequency converter control

- MCC Vector Control frequency converter
- Opening speed up to 2 m/s
- Optional Uninterruptible Power Supply (UPS) integrated underneath barrel cover
- Display unit and main switch located in side column



## MCC Expansion box

Expansion box with interface card  
integrated underneath top roll cover

(Required for 230 V traffic light, potential free  
contact and interlock with other control systems)






### **Door curtain - Default**

Transparent PVC with white (RAL 9010)  
silicone free reinforcement stripes





UPS for Frequency converter	
	Status indication - LED / Anzeige - LED GREEN - Normal condition / GRÜN - Normalzustand
1 blink	Mains failure (battery operation), Netzausfall
2 blink	Alarm Mains failure, Alarm Netzausfall
3 blink	Charger fault/Undervoltage, Alarm Unterspannung
4 blink	Overvoltage (charging off), Alarm Überspannung
5 blink	Aged/Faulty battery, Alarm verbrauchter Batterie
6 blink	Alarm low battery voltage, Alarm niedrige Batteriespannung
Red / Rot	UPS failure, UVS defekt
LED off	Deep discharge, Tiefentladung
LED aus	

## Diagnostic Display Unit / Main switch Self Opening

The user-friendly foil keypad with integrated graphic display and the main switch are integrated in the side column.

Optional UPS battery supplies power to the door in case of a power failure. LED signals battery status.





## Safety features

The door is equipped with an electrical safety contact strip. A contactless pre-running safety photocell is optionally available instead of the contact strip.

Both of these safety devices are also supported by a stationary safety photocell, which prevents the door from closing when objects are in the way.





## Contactless impulse activator *"MAGIC SWITCH"*

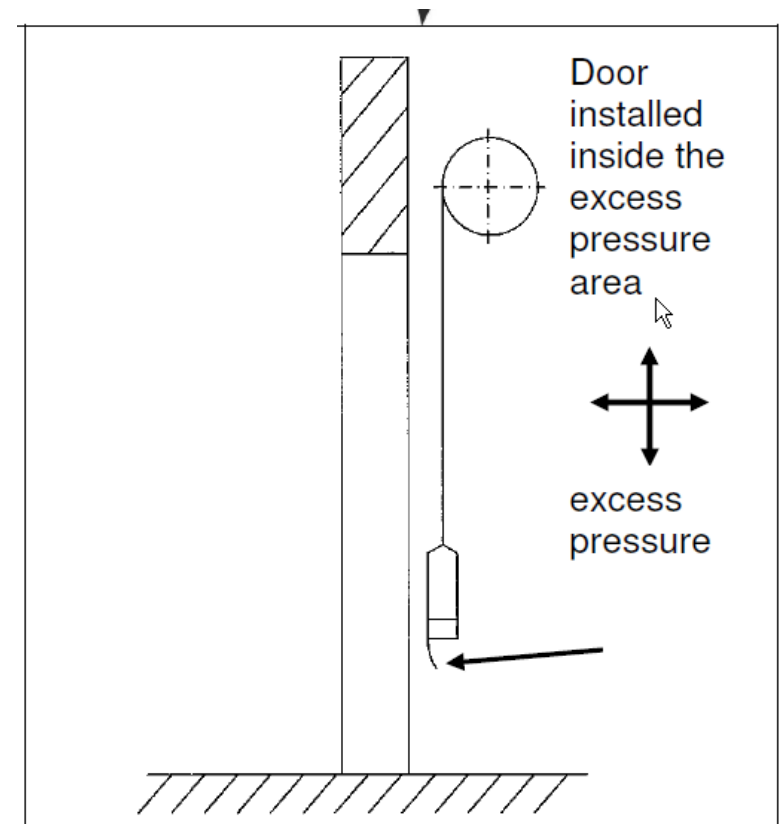
A contactless open switch is optionally available for fast, hygienic opening.





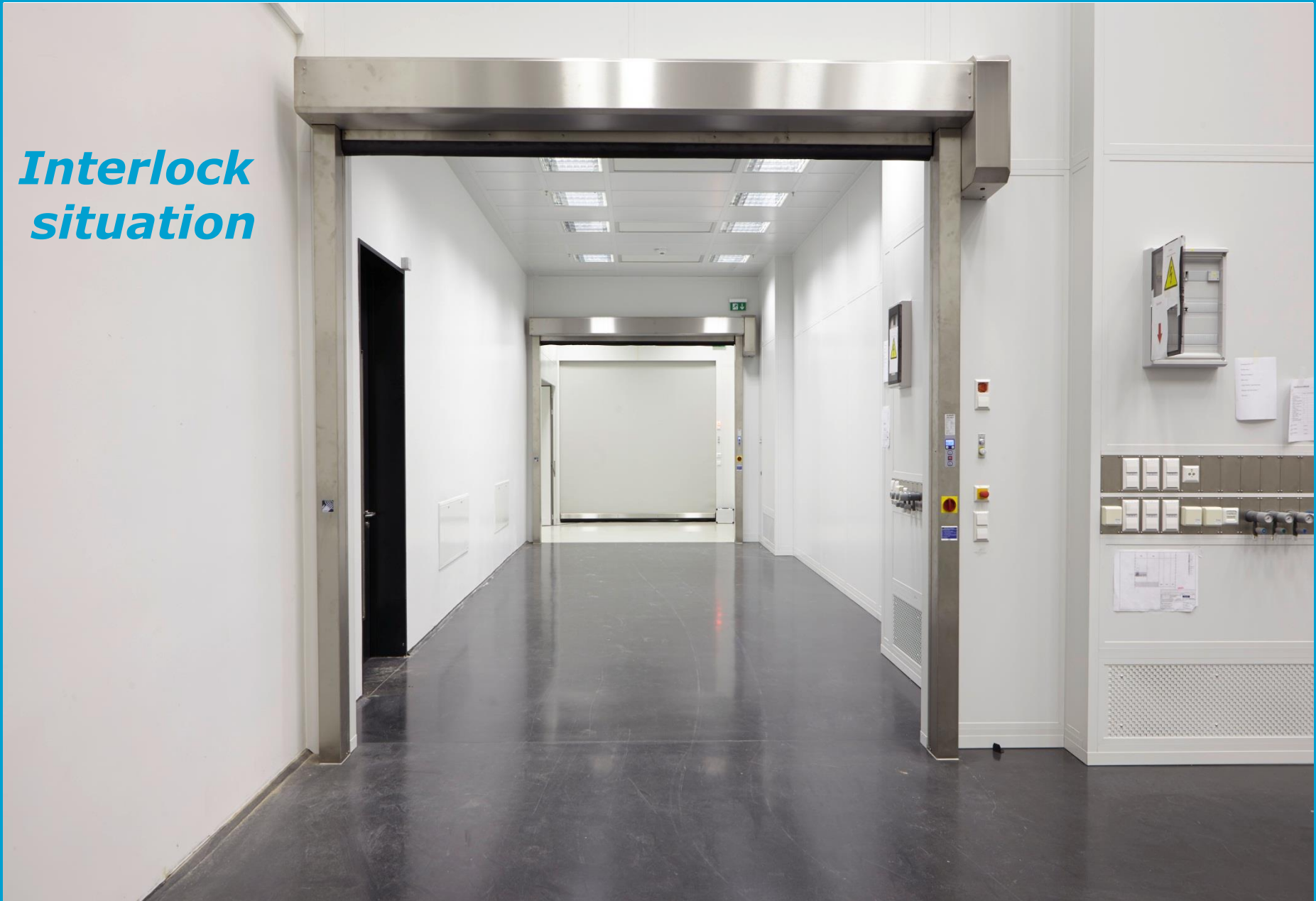
# Sealing function

- Sealing value is the same from both sides
- Lip must be curved in the correct direction (from Factory)



**46.** Attention: the rubber lip of the bottom profile is curved. The rubber lip must be pressed towards the bottom via the excess pressure. If necessary the bottom lip must be turned.

*Interlock  
situation*



## Case study



### Albany equips cleanroom airlocks of Merck in Puerto Rico



The production of medication requires surroundings free of particles because already smallest particles could contaminate the pharmaceutical products.

In order to ensure such surroundings the *Merck* pharmaceutical group implemented several cleanrooms at its production plant in Puerto Rico.

The engineering company *Daldrop + Dr. Eng. Huber*, based in Germany was responsible for planning and implementation.

Eight clean room doors of the type **Rapid Clean** have been integrated to control the access to the material locks.

This high performance door conforms to the Good Manufacturing Practice (GMP) and has been certified (ISO) by the Fraunhofer Institute regarding its ability for cleanrooms.

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