

# RapidProtect™ 2000

Machine protection door with aluminium door blade  
for automated processes

**ALBANY**

**ASSA ABLOY**

Technical data sheet

ASSA ABLOY, the global leader  
in door opening solutions



# RapidProtect™ 2000

- Type tested machine protection door with aluminum door blade
- Safety limit switches according to EN ISO 13849-1 and EN 62061
- Doors conform to EN ISO 12100, EN 1088 and EN 953
- High reliability even after years of high numbers of cycles
- Versions conforming to various factory standards are possible
- Rapid opening and closing ensures short cycle times

## DOOR DESIGN

The side frames are self-supporting and made of galvanized steel shoot sections. The top roll cover is made of anodized aluminum, motor cover is made of grey plastic or steel. The side frames can be powder-coated in many RAL colours.

## DOOR CURTAIN

Slats made of anodized aluminum.

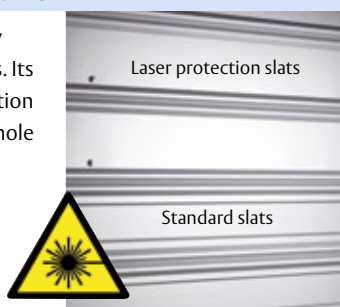
Optional: For process monitoring when the door is closed, slats with windows made of polycarbonate are optionally available.

The door slats can be powder-coated in many RAL colours.



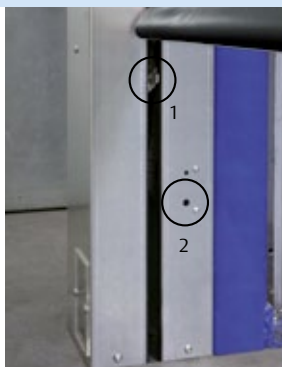
## CURTAIN FOR LASER PROTECTION

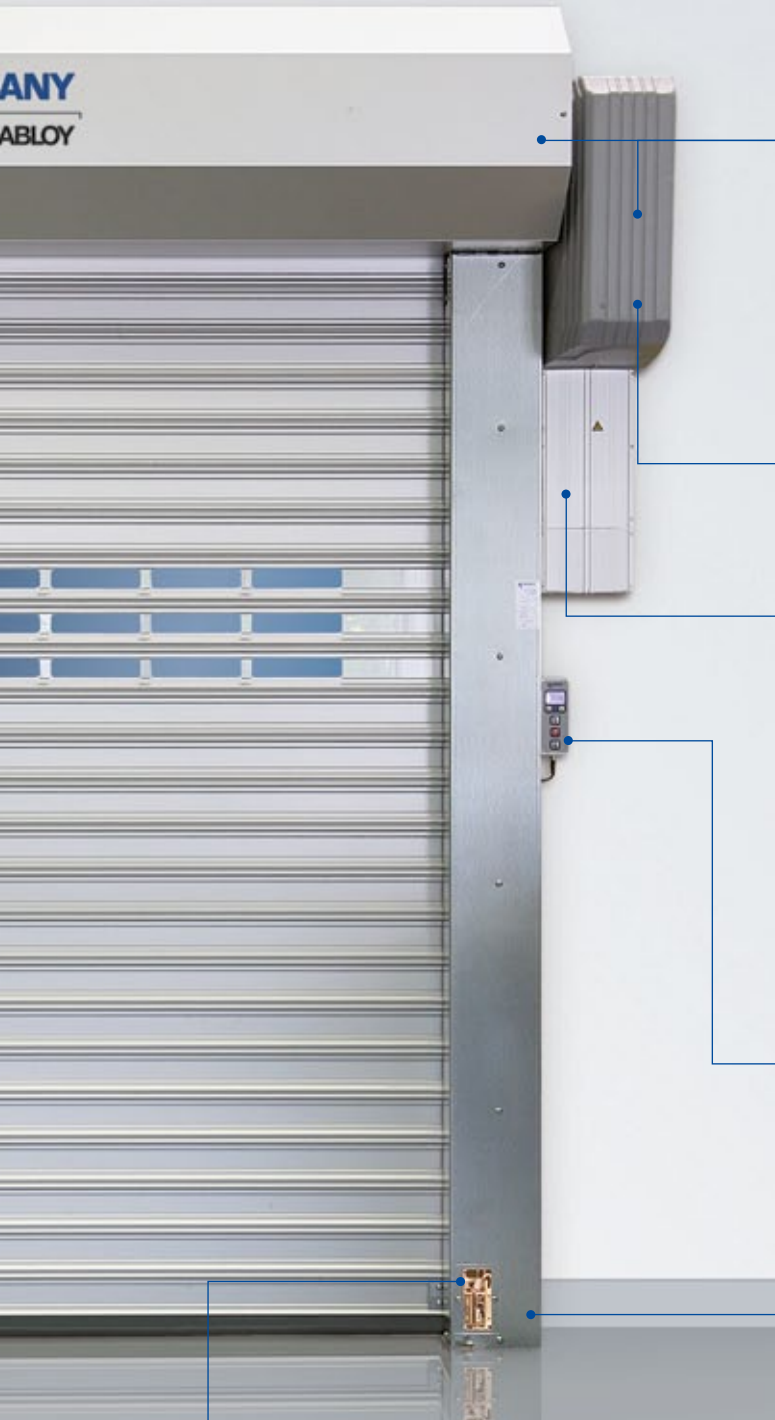
RapidProtect™ 2000 was specifically developed for Laser Protection areas. Its double walled slats prevent penetration from laser beams throughout the whole area of the curtain.



## SAFETY FEATURES

The door has a pre-running photocell (1). As option a door line photocell (2) can be chosen. The door line photocell also prevents the door from closing when objects are interfering.





### MOTOR COVER AND TOP ROLL COVER

The door can be fitted with a motor and top roll cover when needed. For doors of height < 2,5 m the use of top roll cover is required according to standard EN 13241-1.



### MOTOR POSITION

Motor can be fitted on the right- or lefthand side.

### CONTROL SYSTEM

The high performance frequency control MCC<sup>VectorControl</sup> is installed underneath the drive unit without requiring a lot of space.

It ensures an extremely dynamic run of the door with short cycle times.

The microprocessor control of the door makes individual programming for special customer demands possible.



### CONTROL UNIT

The display unit with its user-friendly graphic display and foil keypad.

Optional: display for operation, start-up and error reports.

The display can be used to operate several doors.



### SAFETY LIMIT SWITCHES INTEGRATED IN THE SIDE FRAME

For the indication "door safely closed", safety limit switches according to PL e/Kat. 4 (EN ISO 13849-1), SIL 3 (EN 62061) are integrated in the side frame. Delivered with safety monitoring module as standard.

Optional evaluation by the machines safety systems (versions without safety monitoring module). Transparent covers allow easy monitoring and easy access. (2 units for the laser version)



### FLOOR BRACKETS WEBBED FOOT PLATES

The door can be mounted freestanding on floor with optional webbed foot plates. Levelling screws allow adjustment by uneven floor.



# Machine protection door RapidProtect™ 2000

Both the automotive industry and other industrial sectors place equally stringent demands on automated manufacturing processes. Even the smallest error can result in downtimes and put employees at risk. Machine protection doors are an effective safety measure, providing optimal protection for personnel and machines without adversely affecting cycle times. They enable a rapid switch from complete isolation of a production stage to unimpeded access to the workpiece and machine in a matter of seconds, effectively protecting personnel from flying sparks, welding spatter etc.

## ADVANTAGES OF RAPIDPROTECT™ 2000 MACHINE PROTECTION DOORS

- With a rigid, reinforced curtain made from aluminum slats, the RapidProtect™ 2000 provides complete protection, even from deflection of the curtain.
- The slats are connected with side-mounted flat belts for contact-free winding, which ensures:
  - very rapid speeds
  - reduced operational noise
  - very long maintenance intervals
  - long service life
  - scratch resistant surface
- Individual slats can easily be replaced as required.

## DOOR CONSTRUCTION

The self-supporting side frames are made from steel profiles. The roll cover is made of aluminum and the motor cover is grey plastic or steel. Integrated safety limit switches provide the interface with the machine control system.

## DOOR CURTAIN

The slats are made of anodised aluminum as standard. They can be equipped with windows made of polycarbonate (250 x 40 mm) as an option. Number of windows depends on the door width.

## DRIVE UNIT

Gear motor mounted on the right or left hand side of the door.

## CONTROL SYSTEM

The door is operated with the powerful MCC<sup>VectorControl</sup> control system that allows highly dynamic door operation with an opening speed of up to 2,0 m/s and a closing speed of up to 1,2 m/s, resulting in very short cycle times. The RapidProtect™ 2000 door is designed for continuous operation with up to five cycles per minute.

## CONNECTING TO THE MACHINE

- Potential-free safe contacts for "Door closed"
- Output "Door open"
- Output "Door closed"
- Output "Door operational"
- Machine is controlling the door by potential-free contacts

## MANUAL ACTIVATION

In the event of a power failure the door can be operated by releasing the brake manually. Depending on the width/height ratio, the door opens partly by the pre-tension springs.

## SAFETY FEATURES

This door is designed according to the regulations of the Workplace Directive of the UVV as well as the harmonized CE Guidelines including the EN 13241-1.

## INDICATION OF RISK

The security of the door is designed for normal use for vehicles in industrial environment corresponding to the harmonized CE-Guidelines. Next to this, special environmental conditions may have impact on the right choice of doortype. In case of any doubt, please contact our sales engineer to receive consulting in your application.

## TECHNICAL DATA

Door dimension mm (DW min./max.) (DH min./max.)	600 / 3500 mm 1000 / 3000 mm
Opening direction	vertical
X-Level	•

Surface	
Side frame	galvanised steel
RAL-Colours	•

Covers	
Top roll cover	• <sup>1)</sup>
Motor cover	•

Door Curtain	
Anodised aluminum	✓
RAL-Colours	• (not for Laser Protection)
Slats with windows	•

Control system / Drive unit	
Drive unit	electrical
Motor power	1,1 kW
Control system	MCC <sup>VectorControl</sup>

Safety	
Pre-running safety photocell	✓
Door line photocell	•
Counterbalance	✓
Self opening	partial

Speed (m/s)	
Open up to max.	2,0 m/s
Close up to max.	1,2 m/s
Fuse protection	10 A <sup>2)</sup>
3L(N)/PE/380/400/415/440/480V;50/60 Hz	✓ <sup>3)</sup>
Control voltage	24 V DC
Protection	IP 55
Installation without support frame	•

- Option ✓ Standard

<sup>1)</sup> For doors of height < 2500 mm the use of top roll cover is required according to standard EN 13241-1.

<sup>2)</sup> 10 A recommended, 16 A max.

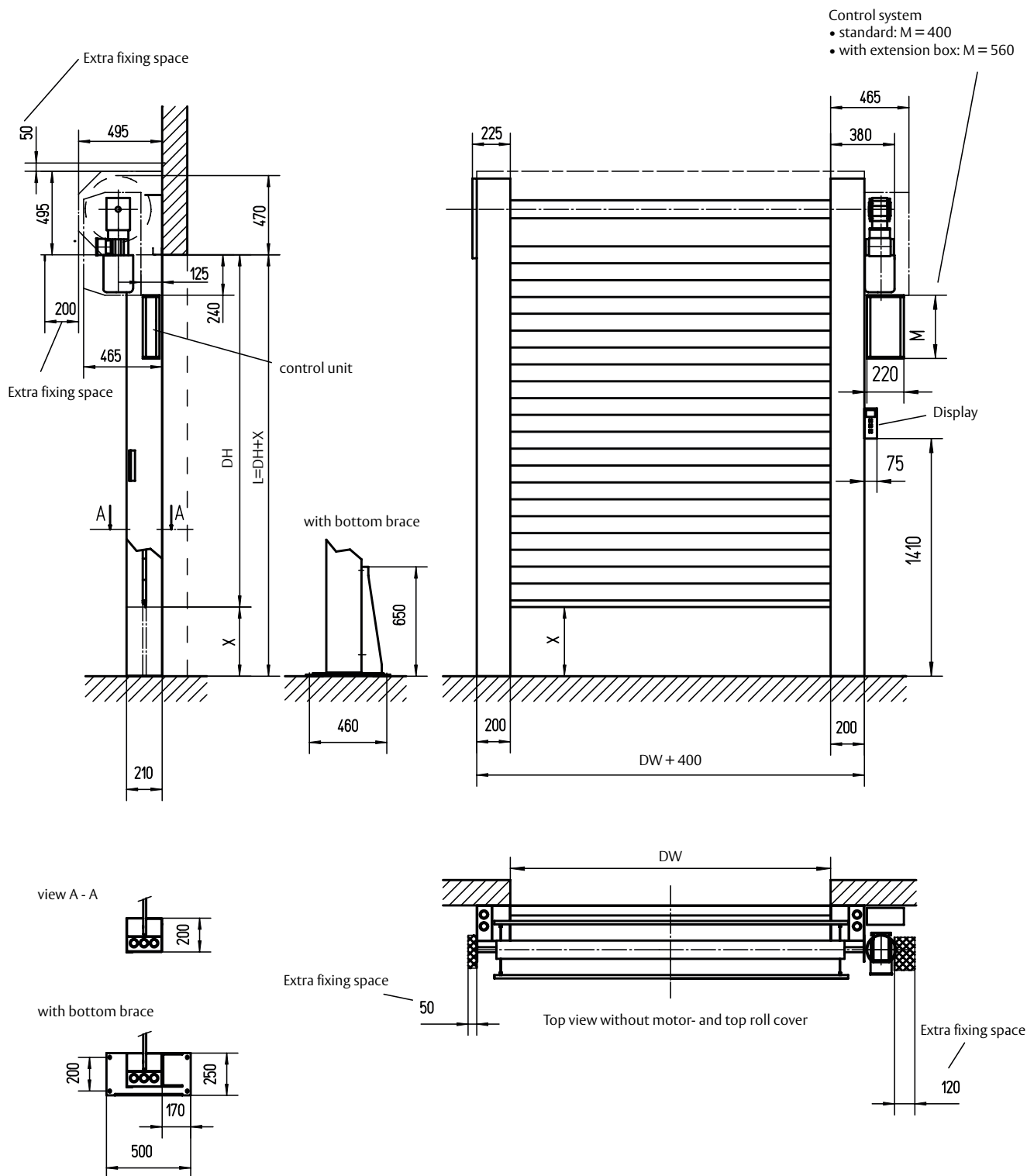
<sup>3)</sup> Transformer necessary for 220/230/500 V.



## PROTECTION

The door is tested by BG according to EN 60825-4 with a 4 kW laser and focus distance 2 and the laser beam didn't burn trough after 60 sec.

# General drawing RapidProtect™ 2000



L max:	3000 mm
DH:	Raster 100 mm
X-Level:	min. 50 mm – Raster 10 mm



ASSA ABLOY Entrance Systems is the leading supplier of entrance automation solutions for an efficient flow of goods and people. With a worldwide presence we offer products and services dedicated to satisfying end-user needs for safe, secure, convenient and sustainable operations. ASSA ABLOY Entrance Systems is a division within ASSA ABLOY.

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