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## SECIFICATION - CLEANROOM

POS.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
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### 01.01 CLEANROOM DOORS

#### 01.01.0010 HIGH-SPEED ROLLING DOOR Lead Product: EFAFLEX Type "EFA-SRT® CR C" ISO 7 Manufacture: 0,000 x 0,000 mm

Manufacture, delivery, and installation of:

Roll-up door with flexible curtain and low air permeability for industrial continuous use in cleanrooms and controlled environments with GMP requirements.

The EFA-SRT® CR C with external control is suitable for operation in cleanrooms up to ISO Class 7 according to EN ISO 14644-1 for particle sizes  $\geq 0.1 \times 10^{-6} \text{m}$ , as confirmed by the TÜV SÜD "Air Particle Cleanliness Test Certificate." The control unit is standardly housed in an external plastic enclosure.

The gate system has good airtightness (up to  $50 \text{ m}^3/\text{h}$  depending on gate size and installation side) with a pressure resistance of up to 30 Pa.

The narrow frames allow for space-saving installation even in confined areas. Thanks to an integrated absolute value encoder, the gate can immediately return to automatic operation after a power outage, without the need for manual synchronization travel.

All visible parts of the self-supporting, fully enclosed gate structure are made of V2A stainless steel. The construction is largely assembled without screws, and all surfaces are designed vertically or at an angle to prevent particle accumulation.

In the standard version, the gate system is executed with a  $15^\circ$  cover.

The door leaf consists of 2 mm thick, PVC-coated flexible polyester fabric (FDA-compliant, antistatic), which is wound onto a horizontally mounted shaft (also made of stainless steel). Color: papyrus white similar to RAL 9018, light gray similar to RAL 7035, signal gray similar to RAL 7004, pure white similar to RAL 9010.

The typically high tightness is achieved by pressing the curtain flat against stainless steel profiles on the sides and in the lintel area under overpressure or underpressure.

The standard TÜV-tested door line light grid EFA-TLG® offers a highest level of active and passive safety:

An emergency opening of the door, for example in the event of a power failure, is always possible via a lever located on the frame. This causes the door to be lifted about halfway by a tension spring located in the frame. The door can then be manually pushed further with little effort.

#### Air permeability:

Installation on the pressure side  $< 20 \text{ m}^3/\text{m}^2\text{h}$

Installation on the suction side  $< 50 \text{ m}^3/\text{m}^2\text{h}$

Pressure resistance up to 30 Pa

#### Door version according to ISO class 14644-1 and VDI 2083 sheet 9.1:

ISO class 7: Control external  
(optionally in plastic or steel housing)

#### Performance:

Up to 200,000 load cycles per year with a product lifecycle of 10 years

**OPENING SPEED: up to approx. 2.0 m/s**  
**Max. door leaf speed: up to 2.5 m/s**  
**CLOSING SPEED: up to approx. 0.75 m/s.**

(depending on door size)

Regulations according to DIN EN 13241-1 are fulfilled;  
for clear passage opening

Width = ..... mm x Height = ..... mm

**Manufacturer's certification:**

EFAFLEX Tor- und Sicherheitssysteme GmbH & Co. KG  
[www.efaflex.com](http://www.efaflex.com)

Offered Product:

*EFAFLEX* Typ „EFA-SRT® CR C“ ISO 7  
(Bidder's specification)

		<b>1,000 pieces</b>	.....	.....
<b>01.01.0020</b>	<b>Alternative Covering Types:</b> 2 mm PVC-coated polyester fabric according to FDA sections 175.300, 178.2010, and 178.3740 for transporting dry food in the colors: <ul style="list-style-type: none"><li>• blue, similar to RAL 5002, antistatic, silicone-free</li><li>• orange, similar to RAL 2008, non-antistatic, silicone-free</li><li>• red, similar to RAL 3002, non-antistatic, silicone-free</li><li>• yellow, similar to RAL 1021, non-antistatic, silicone-free</li></ul>	<b>1,000 pieces</b>	.....	.....
<b>01.01.0030</b>	<b>Viewing Window:</b> Covering design with viewing window (manufactured with horizontal and vertical weld seams) Viewing window height freely adjustable	<b>1,000 pieces</b>	.....	.....
<b>01.01.0040</b>	<b>Alternative Complete Cover 45°:</b> For drive and shaft	<b>1,000 pieces</b>	.....	.....
<b>01.01.0050</b>	<b>Alternative Complete Cover 90°:</b> In straight design for drive and shaft	<b>1,000 pieces</b>	.....	.....
<b>01.01.0060</b>	<b>Infrared Presence Detector:</b> With active detection of moving AND stationary objects. For personnel and gate protection Design: • Above the gate system on the wall Color: optionally black or white	<b>1,000 pieces</b>	.....	.....
<b>01.01.0070</b>	<b>Contactless Pulse Generators:</b> Type "Magic Switch Chroma" Various Versions: <ul style="list-style-type: none"><li>• Surface-mounted on the wall with an installation height of 20 mm</li><li>• Flush-mounted in the wall with an installation height of 7 mm</li></ul>	<b>1,000 pieces</b>	.....	.....
<b>01.01.0080</b>	<b>Cleanroom-compatible Push Buttons:</b> Push Button TYPE Jung LS 990 in various versions	<b>1,000 pieces</b>	.....	.....

01.01.0090	<b>Traffic light indicators:</b>		
	LED-CR, red/green Configuration: • Flush-mounted, including flush-mounted box for wall installation	1,000 pieces	.....
01.01.0100	<b>Mechanical Emergency Release</b>		
	For the opposite side of the gate using a lever (recessed or surface-mounted) for partial opening of the gate system using spring force (brake ventilation)	1,000 pieces	.....
01.01.0110	<b>Independent Power Supply UPS-EDO-CR:</b>		
	in a separate control cabinet (380x600x210) with plug-in connection, 230 Volts / 50 Hz designed for at least one complete gate movement (opening or closing) at reduced operating speed (availability: max. 1 hour) Continuous ambient temperature up to max. 25°C Optional: Button for the opposite side flush-mounted or surface-mounted	1,000 pieces	.....
01.01.0120	<b>independent Power Supply UPS-ADO:</b>		
	In a separate control cabinet (380x600x210 mm), plug-ready, for 230 V AC voltage, designed for at least ten full gate cycles at normal operating speed (availability with active UPS: max. 1 hour), continuous ambient temperature max. +25 °C Standard cable length to gate control max. 5 m Optional: Push button for the opposite side, flush-mounted or surface-mounted	1,000 pieces	.....
01.01.0130	<b>Control Expansion GVM:</b>		
	Mutual interlocking of two EFAFLEX high-speed gates including wiring up to max. 5 m in the building-side cable management	1,000 pieces	.....
01.01.0140	<b>Control Expansion Conveying System:</b>		
	Separate terminal area in standard control cabinet For the following inputs and outputs: Inputs: Pulse Out, Pulse In, Emergency Stop, Interlock Pulse Generator Outputs: potential-free signal Gate Open, Gate Closed, potential-free signal Ready/Fault (outputs can be used with max. 24 Volts DC)	1,000 pieces	.....
01.01	<b>CLEANROOM GATES</b>	<b>Total:</b>	.....