Project xx

**SECIFICATION - Cleanroom**

POS. DESCRIPTION QUANTITY UNIT UNIT PRICE TOTAL PRICE

**01.01 Cleanroom doors**

**01.01.0010 HIGH-SPEED ROLLING DOOR**Leading product: **EFAFLEX type ‘EFA-SRT® CR Premium’** Manufacture: **0,000 x 0,000 mm**

Manufacture, delivery and installation of:

GMP high-speed roller door type **‘EFA-SRT® CR Premium**’ with electromechanical high-performance drive for continuous industrial use in clean rooms.

The **‘EFA-SRT® CR Premium’** door system is certified by **TÜV SÜD** as suitable foruse in clean rooms up to ISO class 5 (according to EN ISO 14644-1) for particle sizes >= 0.3 µm. This results in an air loss of up to 20 m³/h for air pressure differences of up to 30 Pa (depending on size and installation side).

All **visible parts** of the self-supporting, self-contained door construction are made of **V2A stainless steel.** The individual components of the construction are connected to each other without screws (clip technology) and all surfaces are vertical or sloped to prevent particle deposits.

The door system is designed with a 15° cover as standard.

**The electric direct drive** (motor with electric brake and gearbox) is controlled by a microprocessor-controlled frequency converter. All components of the control system, including the membrane keyboard (OPEN-STOP-CLOSE) and info display, are integrated into the door frame.

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

The typically high level of tightness is achieved by pressing the curtain laterally and in the lintel area against stainless steel profiles in the event of positive or negative pressure.

Accident protection:

The scope of delivery includes a **one-way light barrier**, which is integrated into the door frame, and an electric **safety contact strip**, self-monitoring in accordance with DIN EN12453. The signal from the **contact strip** is transmitted via a wireless radio link. An emergency stop push button is fitted to the frame as standard.

The door can be opened manually at any time, e.g. in the event of a power failure, using a pull knob located on the frame. This moves the door upwards by about half its height using a tension spring located in the frame .The door can then be pushed open further manually with little effort.

All regulations in accordance with DIN EN 13241-1 are met.

**OPENING SPEED:** **approx. 1.0 m/sec. Max. DOOR LEAF SPEED: up to approx. 1.5 m/sec**. (depending on the door size) **CLOSING SPEED**: **approx. 0.5 m/sec.**

Connection on site to 230 V / 50-60 Hz. Fuse protection 16 A  
  
With functional testing and commissioning for clear opening (max. W x H = 2,500 x 3,000 mm)  
  
Width = ............... mm x Height = ............... mm

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

Product offered:

*EFAFLEX* Typ „EFA-SRT® CR Premium“

**1,000 pieces ………………… …………………**

**01.01.0020 Alternative curtain types\_**

2 mm PVC-coated polyester fabric

In accordance with FDA paragraphs

175.300, 178.2010 and 178.3740 for the

transport of dry foodstuffs in the

colours:

* Blue, similar to RAL 5002, antistatic, silicone - free
* Orange, similar to RAL 2008, non- antistatic, silicone - free
* Red, similar to RAL 3002, non-antistatic, silicone - free
* Yellow, similar to RAL 1021, non-antistatic, silicone - free

**1,000 pieces ………………… …………………**

**01.01.0030 Viewing window:**

Curtain design with viewing window

(with horizontal and vertical weld seams due to manufacturing process)

Viewing window height freely selectable **1,000 pieces ………………… …………………**

**01.01.0040 Alternative complete cover 45°:**

For drive and shaft

**1,000 pieces ………………… …………………**

**01.01.0050 Alternative complete cover 90°:**

Straight design for drive and shaft

**1,000 pieces ………………… …………………**

**01.01.0060 Door line light grid:**

TLG, TÜV-tested, directly in the door closing plane

Effective up to a height of 2.5 m, protected and

integrated into the side frames

**1,000 pieces ………………… …………………**

**01.01.0070 Infrared precence detector:**

With active detecton of moving AND

stationary objects.

* Clean room-compatible integration

in complete cover

* Above the door system on the wall

Colour: black or white optional

**1,000 pieces ………………… …………………**

**01.01.0080 Contactless pulse generator:**

Type „MagicSwitch Chroma”

Various designs:

* Flush-mounted in the switch cabinet

cover of the motor frame

* Flush-mounted in the motor frame
* Surface-mounted on the wall

with a mounting height of 20 mm

* Flush-mounted on the wall

with an installation height of 7 mm

**1,000 pieces ………………… …………………**

**01.01.0090 Cleanroom-compatible push buttons:**

Push buttons TYPE Jung LS 990 in

various designs

**1,000 pieces ………………… …………………**

**01.01.0100 Traffic light displays:**

LED-CR, red/green

Various versions:

* Flush-mounted above the control unit

Integrated into the motor frame

* Flush-mounted, incl. flush-mounted box for wall mounting **1,000 pieces ………………… …………………**

**01.01.0110 Mechanical emergency releas:**

For the opposite side of the gate using a pull knob or lever

(flush-mounted or surface-mounted) for partial opening of the gate system

using spring force (brake release)

**1,000 pieces ………………… …………………**

**01.01.0120 Electrical emergency releas:**

Via button on the frame for partial opening of the gate system

Using spring force (brake release), button for the

opposite side of the gate, flush-mounted or surface-mounted **1,000 pieces ………………… …………………**

**01.01.0130 Independent power supply UPS-EDO-CR:**

Integrated into the EFA-SRT® CR Premium in the motor frame.

Function:

* One-time, complete opening (or closing)

of the door system in the event of a power failure.

The door travels at reduced speed.

* Availability with a fully charged battery for at least 1 hour

after a power failure or activation

(testing and maintenance required)

* Pulse generators are deactivated in the event of a power failure
* Gate system opens after pressing the

emergency opening button on the frame

* Any existing lock function is

deactivated

* Optimum operating temperature +20 °C

Note: Mechanical emergency release via

pull knob on the frame (partial opening of the gate system

by spring force) remains in place

Optional: Button for the opposite side, flush-mounted or surface-mounted

**1,000 pieces ………………… …………………**

**01.01.0140 Independent power supply UPS-ADO:**

In separate control cabinet (380x600x210 mm)

Ready to plug in, for 230 V AC voltage, designed

for at least ten complete door cycles at regular

running speed (availability with active UPS:

max. 1 hour), continuous ambient temp. max. +25 °C

Standard cable length to door control max. 5 m

Optional: Push button for the opposite side, flush-mounted or surface-mounted **1,000 pieces ………………… …………………**

**01.01.0150 Control extension GVM:**

Mutual locking of two

EFAFLEX high-speed doors incl. cabling

up to max. 5 m in on-site cable routing **1,000 pieces ………………… …………………**

**01.01.0160 Special control extension SON-GVM-5:**

Control extension ‘Mutual interlocking’

for interlocks of up to 5 EFAFLEX high-speed doors

including separate central control cabinet to accommodate

the necessary relays

plus cable routing to the door systems **1,000 pieces ………………… …………………**

**01.01.0170 Control extension for conveyor technology:**

Separate terminal area in standard control cabinet

For the following inputs and outputs:

Inputs: Pulse open, Pulse closed, Emergency stop, Interlock

Pulse generator

Outputs: potential-free signal Gate open, Gate closed,

potential-free signal Ready/Fault

(Outputs assignable with max. 24 volts DC) **1,000 pieces ………………… …………………**

**01.01 CLEAN ROOM DOORS Total: …………………**