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* Typ „EFA-SRT® CR C“ ISO 6**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 sterile rooms with GMP requirements.

The EFA-SRT® CR C is suitable for operation in cleanrooms up to ISO Class 6 according to EN ISO 14644-1 for particle sizes >=0.1x10^-6 m, as certified by the "Test Certificate for Air Particle Cleanliness" from TÜV SÜD.  
  
The control unit is mounted behind the cover on the winding shaft, so no external control cabinet is required.  
  
The gate system has good airtightness (up to 50 m³/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 encoder, the gate can immediately return to automatic operation after a power failure, without the need for a manual synchronization run.  
  
All visible parts of the self-supporting, fully enclosed gate structure are made of V2A stainless steel. The construction is largely connected without screws, and all surfaces are designed vertically or at an angle to prevent particle accumulation.  
  
The standard design features a gate system with a 15° cover.  
  
The door leaf is made 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 evenly against stainless steel profiles on the sides and in the lintel area under over- or underpressure.  
**The standard, TÜV-approved EFA-TLG® gate line light grid offers a maximum level of active and passive safety:**

An emergency opening of the gate, e.g., in the event of a power failure, is always possible via a lever located on the frame. This causes the gate to be lifted up to about halfway by a tension spring in the frame. With minimal effort, the gate can be manually pushed further open  
  
**Air permeability:**  
Installation on the positive pressure side < 20 m³/m²h

Installation on the negative pressure side < 50 m³/m²h

Pressure resistance up to 30 PaDoor  
  
  
**Gate operation according to ISO Class 14644-1 and VDI 2083 Sheet 9.1:**  
  
ISO Class 6: Control integrated into the cover  
  
**Performance:**

**Up to 200,000 load cycles per year with a product lifecycle of 10 years**  
  
**OPENDING SPEED: bis ca. 2,0 m/s**  
**MAX DOOR LEAF SPEED: bis zu 2,5 m/s (**depending on door size)  
**CLOSING SPEED: bis ca. 0,75 m/sec.**  
  
Regulations according to DIN EN 13241-1 are fulfilled; for clear passage opening  
  
  
Widht = ............... mm x Height = ............... mm  
  
**Manufacturers certification:**  
EFAFLEX Tor- und Sicherheitssysteme GmbH & Co. KG  
[www.efaflex.com](http://www.efaflex.com)  
  
  
Offered Product:

*EFAFLEX* Typ „**EFA-SRT® CR C**“ ISO 6   
(Bieterangabe)

**1,000 pieces ………………… …………………**

**01.01.0020 Alternative types of covering:**

2 mm PVC-coated polyester fabricAccording to FDA sections 175.300, 178.2010, and 178.3740 for the transport of dry food in the colors:

• 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:**

Coating version with viewing window(due to manufacturing with horizontal andvertical weld seams)Viewing window height freely selectable **1,000 pieces ………………… …………………**

**01.01.0040 Alternative Full Cover 45°:**

For drive and shaft

**1,000 pieces ………………… …………………**

**01.01.0050 Alternative Full Cover 90°:**

In straight design for drive and shaft **1,000 pieces ………………… …………………**

**01.01.0060 Infrared Presence Detector:**

With active detection of moving AND stationary objects.As personnel and gate protectionVersion:

• Above the gate system on the wallColor: optional black or white **1,000 pieces ………………… …………………**

**01.01.0070 Contactless Pulse Generators**

Type "Magic Switch Chroma"Various versions:

• Surface-mounted on the wallwith an installation height of 20 mm

• Flush-mounted in the wallwith an installation height of 7 mm **1,000 pieces ………………… …………………**

**01.01.0080 Cleanroom-compatible push buttons:**

Push button TYPE Jung LS 990 in various versions **1,000 pieces ………………… …………………**

**01.01.0090 Traffic Light Indicators:**

LED-CR, red/greenDesign:

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

**01.01.0100 Mechanical Emergency Release:**

For the opposite side of the gate using a lever(recessed or surface-mounted) for partial opening of the gate systemusing spring force (brake ventilation) **1,000 pieces ………………… …………………**

**01.01.0110 Independent Power Supply UPS-EDO-CR:**

in a separate control cabinet (380x600x210) with plug-in connection, 230 Volts / 50 Hz, designed for at least one full gate movement (opening or closing) at reduced operating speed (availability: max. 1 hour) Continuous ambient temperature up to max. 25°C Optional: push button for the opposite side, flush-mounted or surface-mounted

**1,000 pieces ………………… …………………**

**01.01.0120 Independent Power Supply UPS-ADO:**

In a separate control cabinet (380x600x210 mm), ready to plug in, for 230 V AC, designed for at least ten complete door cycles at normal operating speed (availability with active UPS: max. 1 hour), continuous ambient temperature max. +25 °C, standard cable length to the door control max. 5 m. Optional: push button for the opposite side, flush-mounted or surface-mounted, **1,000 pieces ………………… …………………**

**01.01.0130 Control extension GVM:**

Mutual interlocking of two EFAFLEX high-speed doors including wiring up to a maximum of 5 m in the on-site cable routing **1,000 pieces ………………… …………………**

**01.01.0140 Control Extension for Conveyor Technology:**

Separate terminal area in the standard control cabinet   
For the following inputs and outputs:   
Inputs: Pulse Open, Pulse Close, Emergency Stop, Interlock, Pulse Generator   
Outputs: potential-free signal Door Open, Door Closed,   
potential-free signal Ready/Fault   
(Outputs assignable with max. 24 Volts DC) **1,000 pieces ………………… …………………**

**01.01 CLEANROOM DOORS Total: …………………**