# The World of Doors Premium doors from the world market leader







# Modern industrial doors for the highest demands.

Discover the whole world of EFAFLEX high-speed doors. We use innovative engineering to create individual industry solutions – with maximum reliability, safety, and efficiency. More than 1,400 employees worldwide ensure your complete satisfaction.



# The world of doors at a glance.

COMPANY	06
QUALITY	08
SUSTAINABILITY	10
DIGITIZATION	12
WHY CHOOSE EFAFLEX?	

# PRODUCTS

### HIGH-SPEED SPIRAL DOOR ......16

High-speed spiral door EFA-SST<sup>®</sup> High-speed spiral door EFA-SST<sup>®</sup> Essential High-speed spiral door parking systems EFA-SST<sup>®</sup> PS High-speed turbo door EFA-STT<sup>®</sup> High-speed turbo roll-up door EFA-STR<sup>®</sup> High-speed spiral door EFA-SST<sup>®</sup> Classic

# 

High-speed roll-up door EFA-SRT<sup>®</sup> Premium High-speed roll-up door EFA-SRT<sup>®</sup> ECO High-speed roll-up door EFA-SRT<sup>®</sup> Value High-speed roll-up door EFA-SRT<sup>®</sup> Soft Touch High-speed roll-up door EFA-SRT<sup>®</sup> EC High-speed roll-up door EFA-SRT<sup>®</sup> EasyFit

# 

High-speed folding door EFA-SFT®



## SPECIALIST APPLICATIONS

## DEEP FREEZE ...... 38

High-speed spiral door EFA-SST<sup>®</sup> ISO-60 High-speed spiral door EFA-SST<sup>®</sup> TK-100

# 

High-speed roll-up door EFA-SRT<sup>®</sup> MS Performance High-speed roll-up door EFA-SRT<sup>®</sup> MS High-speed roll-up door EFA-SRT<sup>®</sup> MS USD High-speed spiral door EFA-SST<sup>®</sup> MS

# CLEAN ROOM ...... 48

High-speed roll-up door EFA-SRT<sup>®</sup> CR Premium High-speed roll-up door EFA-SRT<sup>®</sup> CR Efficient Vertical EFA-HVS<sup>®</sup> CR door High-speed roll-up door EFA-SRT<sup>®</sup> CR-C High-speed turbo door EFA-STT<sup>®</sup> CR

## 

High-speed spiral door EFA-SST<sup>®</sup> Secure (RC3, RC4) High-speed spiral door EFA-SST<sup>®</sup> Efficient (RC2)

### 

High-speed spiral door EFA-SST<sup>®</sup> EX High-speed roll-up door EFA-SRT<sup>®</sup> EX

High-speed roll-up door EFA-SRT<sup>®</sup> MTL High-speed roll-up door EFA-SRT<sup>®</sup> MHT Compact

### PERIPHERY & ACCESSORIES ...... 68

EFA-SmartConnect® EFA-SCAN® laser scanner EFA-TLG® door light grid Sensors and detectors Contactless opening systems EFA-TRONIC® door control

#### INDUSTRY SOLUTIONS......76

Custom-made solutions that are specifically tailored to the needs of your industry

#### 

Maintenance, testing, spare parts, repairs, troubleshooting, on-site advice and training

#### 

All data and figures about the High-speed doors from EFAFLEX

# EFAFLEX – Family business and global player.



In 1974, **EFAFLEX** was the first company in the world to exclusively focus on high-speed doors. Our vision from then has developed into our technological edge today – it determines our thoughts and actions for tomorrow: Worldwide leader in high-speed door technology.

# THE WORLD LEADER IN HIGH-SPEED DOORS

As the only manufacturer in the field of high-speed industrial doors, EFAFLEX is listed in the world market leader index and is therefore one of the top companies in Germany, Austria, and Switzerland. The family-owned company employs more than 1,400 people worldwide and works for clients ranging from industry, trade and food production to the chemical and pharmaceutical sectors.

# OUR VALUES



LOYALTY



#### SUSTAINABILITY



RESPECT



TRUST



QUALITY



#### **ON SITE FOR YOU WORLDWIDE**

At our headquarters in Bruckberg near Munich, EFAFLEX is firmly anchored as one of the largest employers in the region. In addition, the company has opened up to international markets with ten subsidiaries on five continents. EFAFLEX generates more than 60 percent of its turnover abroad. With our international service network, we are always nearby, anywhere in the world.



# OUR FOUNDATION: STRONG VALUES THAT ARE LIVED

Our success as world market leader is based not only on our extraordinarily extensive technical know-how, decades of experience, and our dynamic, innovative research and development department.

What makes us strong are our values and the people at EFAFLEX who live these values: Loyalty and integrity, respect for our environment and sustainable action in the entire supply chain. At EFAFLEX we are convinced that the quality of our doors is not just a product feature. This quality is the prerequisite for our customers to place their trust and respect in us. To us, that's what matters.

# Quality on all levels. For your success.

Performance at the highest level is a long-standing tradition at EFAFLEX. Trust our innovative designs for high-speed industrial doors, which meet the highest standards of functionality, reliability and quality. We use the best quality components, most of which come from our own development and production. With EFAF-LEX doors you buy quality that quickly pays for itself.



With our doors, we meet your high demands regarding performance, quality and safety every day, worldwide. That is why EFAFLEX has been your reliable partner for premium doors for around 50 years.



## **QUALITY DOORS FROM THE MARKET LEADER**

With the development of the spiral door, EFAFLEX revolutionized and shaped the entire industry with this innovation in the technical world. Whether spiral, roll-up or folding door, whether clean room or machine protection door - EFAFLEX sets standards in premium quality.

You benefit from the long service life, low wear and tear, and the consistently low operating costs of your doors. Combined with our high service quality for maintenance and repairs, with EFAFLEX you can rely on the best partner for your door system.



#### HOLISTIC QUALITY MANAGEMENT

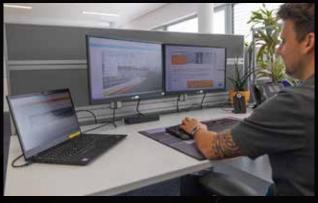
EFAFLEX doors are able to operate under extreme conditions. The highest standards of quality and safety are therefore our top priority. All relevant company processes are revised by our internal quality management department.

In 2005, EFAFLEX was the first door manufacturer to have its high-speed doors regularly tested by the ift Rosenheim for the durability of their performance characteristics. Additionally, the company has been consistently certified by the ift since 2008.



#### **SERVICE QUALITY**

Around the clock and around the world: The company's own EFAFLEX service technicians are always at your side throughout Germany. All employees in our international service network also receive extensive training on a regular basis.



#### **DATA QUALITY**

From planning to completion: EFAFLEX works with the world's leading BIM platforms (Building Information Modeling). This makes the cost calculations and planning of your building simpler, faster, safer, and more accurate.



# Our gateway to greater sustainability.

As a family-owned company, we think and act holistically. That's why we produce premium doors with a long service life, low wear and tear and low operating costs. Optimise your energy and operating cost balance with EFAFLEX and save valuable resources in the long term.

# WITH EFAFLEX HIGH-SPEED DOORS SAVE UP TO €5,000 ON ENERGY COSTS AND 12 TONNES OF CO<sub>2</sub> PER YEAR:





## HIGH OPENING AND CLOSING SPEEDS

With opening and closing speeds of up to 4 m/s, EFAFLEX high-speed doors ensure low air exchange and effectively counteract heat loss. With this you reduce your energy consumption and your CO<sub>2</sub> emissions in the long-term.



### **HIGH QUALITY MATERIALS**

Thanks to high-quality materials and intelligent design, our doors can be recycled by type. We prefer to purchase aluminium, steel and electrical components from local and European suppliers – taking material compliance into account.



#### **OPTIMISED THERMAL INSULATION**

EFAFLEX high-speed doors are characterised by their particular tightness and excellent thermal insulation, which reduce heat loss and prevent thermal bridges, lowering your heating costs in the long-term. This way, U-values of less than <u>1 W/m<sup>2</sup>K can be achieved</u>.

#### **GUARANTEED LONGEVITY**

While doors from other manufacturers need to be replaced after three to five years, EFAFLEX high-speed doors have a service life of more than 10 years and can achieve several million cycles. This saves energy and assembly trips and protects the use of resources, raw materials, and production energy. This is officially documented by the EPD (Environment Product Declaration). In addition, the purchase pays for itself within a much shorter period of time.

# The digital world of EFAFLEX.

Networked doors, online product platforms and digital business processes - when it comes to digitization, EFAFLEX is at the forefront. The areas of Industry 4.0, Smart Factory and Internet of Things are just as much a focus as the digitization of various work areas.



# THE INTELLIGENT NETWORKING: EFA-SMARTCONNECT®

With EFA-SmartConnect<sup>®</sup>, EFAFLEX offers the IoT solution for intelligent, networked doors. The free, user-friendly app enables central monitoring and displays the status of all doors clearly and in real time. According to the diagnosis – service – maintenance principle, you can prevent faults in good time and also plan maintenance in advance. This not only minimises downtimes, but also lowers operating costs.



# VIDEO SUPPORT BY SMARTPHONE: EFA-SMARTASSIST®

Do you have a request where the factors of response and travel time or costs are critical? With EFA-SmartAssist<sup>®</sup>, a normal phone call becomes a solution-oriented video support. You will be invited to the digital assistant via SMS on your smartphone without having to install an app. With the data protection-compliant functions such as live video, chat, location or HD photo, we can carry out a digital fault analysis and elimination for you and in many cases a damage assessment without being on site.

# CREATE DIGITAL PLANS: WITH BIM (BUILDING INFORMATION MODELING)

EFAFLEX is currently represented in seven categories with over 50 different door types in German, English, and French on the world's leading BIM platforms. The BIM models are available for the three most popular programs - Revit, AutoCAD, and ArchiCAD.





# TAKE INNOVATIVE APPROACHES TOGETHER



With an EFAFLEX high-speed door, you decide in favour of the world's leading technology and benefit exclusively from our technical advantage. We are passionate about the high-quality production of high-speed doors and always strive for improvement. That is why we are constantly working on continuous improvements of our products and developing new solutions for your areas of application.

# KNOW-HOW YOU CAN TRUST



Our employees are outstandingly well trained and are always ready to help you whether you require basic advice on our doors or have specific demands for a special project, we are always there for you.

# THINK ABOUT SUSTAINABILITY AND PASS IT ON



As a family-owned business, we understand how important sustainable work is to enable future generations to live and work. Our actions are therefore characterised by sustainability and environmental awareness. With our services and products, we pass these values directly on to you.

# **QUALITY THAT PAYS**



Our self-image of innovative engineering is the basis for the top quality of our high-speed doors. Based on ground breaking constructions, we create technology that enables maximum reliability, efficiency, and durability. Premium quality pays off – you save permanently.



# High-speed spiral doors When speed is of the essence.

17

# The spiral. Often imitated – but unrivalled to this day.



It was more than 25 years ago that EFAFLEX invented the spiral door, and it has been further developed on a consistent basis as an innovation leader ever since. The EFAFLEX spiral door stands for door leaf guidance to perfection: the door leaf is not wound on a shaft, but kept at a space-saving distance by the spiral-shaped guidance system. Thanks to this mechanical principle, the spiral doors from EFAFLEX operate exceptionally quietly, are almost wear-free and extremely fast.

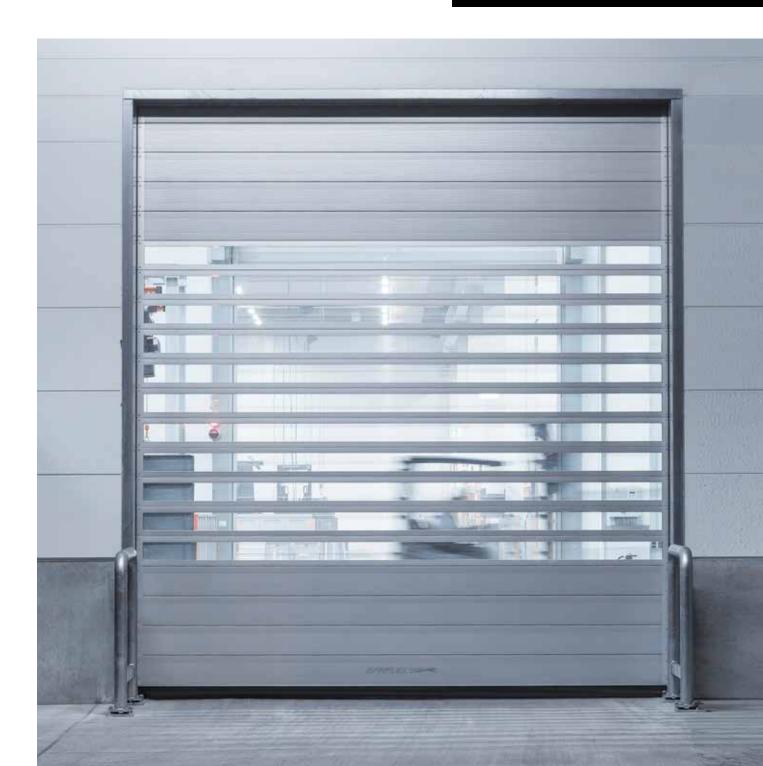
The spiral door technology from EFAFLEX remains unrivalled to this day and exemplary for worldwide door technology. No other design is able to combine the highest opening speeds, durability and effectiveness so well. Our high-speed spiral doors are also available in a wide range of designs and can be installed where space is limited.

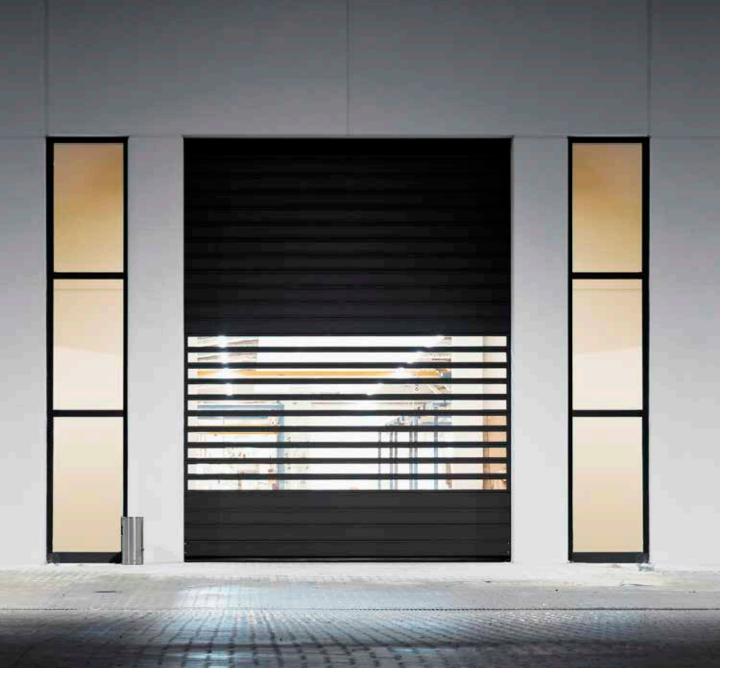
# Spiral door technology in perfection. EFA-SST®

The EFA-SST<sup>®</sup> high-speed spiral door represents a modern generation of industrial doors: perfect insulation, energyefficient functionality, state-of-the-art technology. During the technical redesign, particular attention was paid to improving the physical properties of the door leaf as well as optimising the functionality, thus once again raising the standard of EFAFLEX industrial doors.

# EFA-SST° AT A GLANCE:

- Max. heat insulation with EFA-THERM<sup>®</sup> laths
- Opening speed up to 2.5 m/s
- Closing speed up to 1.0 m/s
- Highest wind load capacity
- Top safety devices
- Up to 250,000 operating cycles p.a.
- Standard sizes of up to w=10,000 mm, h=12,000 mm





# EFA-SST° ESSENTIAL AT A GLANCE:

- Excellent acoustic and thermal insulation
- Wind resistance class 2 4
- Up to 100,000 load cycles p.a.
- Suitable for external and internal applications
- Opening speed of up to 0.5 m/s
- Standard sizes of up to w=4,500 mm, h=5,000 mm

# The entry-level door with best price-performance. EFA-SST<sup>®</sup> Essential

Powerful, robust, economical: An attractive purchase price and the consistently high quality standards that are customary to EFAFLEX make the EFA-SST<sup>®</sup> Essential high-speed spiral door the price-performance champion. The homogeneous design of the spiral guarantees a smooth running performance while also maintaining a high-speed up to 0.5 m/s.



# The fastest parking garage door in the world. **EFA-SST® PS**

The EFA-SST<sup>®</sup> PS is a space-saving door specially developed for parking and garage systems. This door can be optimally installed even with minimal space in the lintel or side case area. In addition, it also features the typical properties of every EFAFLEX high-speed door: safe, reliable and incomparably fast.

# EFA-SST<sup>®</sup> PS AT A GLANCE:

- Space-saving construction
- Opening up to 1.8 m/s
- Closing up to 1.0 m/s
- Highest wind load capacity
- Top safety devices
- Optionally with EFA-VENT<sup>®</sup> ventilation laths
- Up to 200,000 operating cycles p.a.
- Standard sizes of up to w=6,100 mm, h=4,000 mm



# The transparent turbo door. EFA-STT<sup>®</sup>

Thanks to laths made of crystal-clear acrylic glass, the door leaf of the EFA-STT<sup>®</sup> is over 70 percent transparent – this makes it a unique high-speed door worldwide: robust and yet almost completely translucent. The ability to see through the door offers advantages where two-way traffic occurs: Accidents are prevented and smooth transport operations are guaranteed.

# EFA-STT° AT A GLANCE:

- The door leaf consists at 70% of crystal clear acrylic glass
- Opening speed up to 3.0 m/s
- Closing speed up to 1.0 m/s
- Highest wind load capacity
- Top safety devices
- Up to 200,000 operating cycles p.a.
- Standard sizes of up to w=8,000 mm, h=7,800 mm





# EFA-STR® AT A GLANCE:

- Opening speed up to 4.0 m/s
- Closing speed up to 1.0 m/s
- Highest wind load capacity
- Top safety devices
- Up to 250,000 operating cycles p.a.
- Standard sizes up to w=7,000 mm, h=6,000 mm

# The fastest vertically opening door in the world. **EFA-STR**<sup>®</sup>

The high-speed turbo roll-up door EFA-STR<sup> $\circ$ </sup> opens at an incredible speed of up to 4 m/s thanks to its spiral technology, making it our fastest vertically opening door. With the EFA-STR<sup> $\circ$ </sup>, your logistic processes become faster and more efficient. The combination of a spiral door leaf support and flexible curtain ensures an optimal traffic flow.

# Everything revolves around. EFA-SST<sup>®</sup> Classic

Copied a thousand times, yet still unequalled. The tried and tested fundamental principle of EFAFLEX high-speed spiral doors remains unbeatable! The door blade is not rolled up on a shaft, but is guided into the EFAFLEX spiral instead, saving space and virtually wear free operation.

# EFA-SST<sup>®</sup> CLASSIC AT A GLANCE:

- Aluminium laths double-walled
- Opening speed up to 2.0 m/s
- Closing speed up to 1.0 m/s
- Highest wind load capacity
- Top safety devices
- Up to 250,000 operating cycles p.a.
- Standard sizes of uo to w=8,000 mm, h=7,000 mm





High-speed roll-up doors

Versatility as a concept.



# EFA-SRT° PREMIUM AT A GLANCE:

- Clean room version available
- Hygiene version available
- Heavy-duty inside door
- With optional crash protection
- Opening speed up to 2.0 m/s
- Closing speed up to 0.75 m/s
- Up to 150,000 operating cycles p.a.
- Standard sizes up to w=6,000 mm, h=6,000 mm

# The reliable all-rounder. EFA-SRT<sup>®</sup> Premium

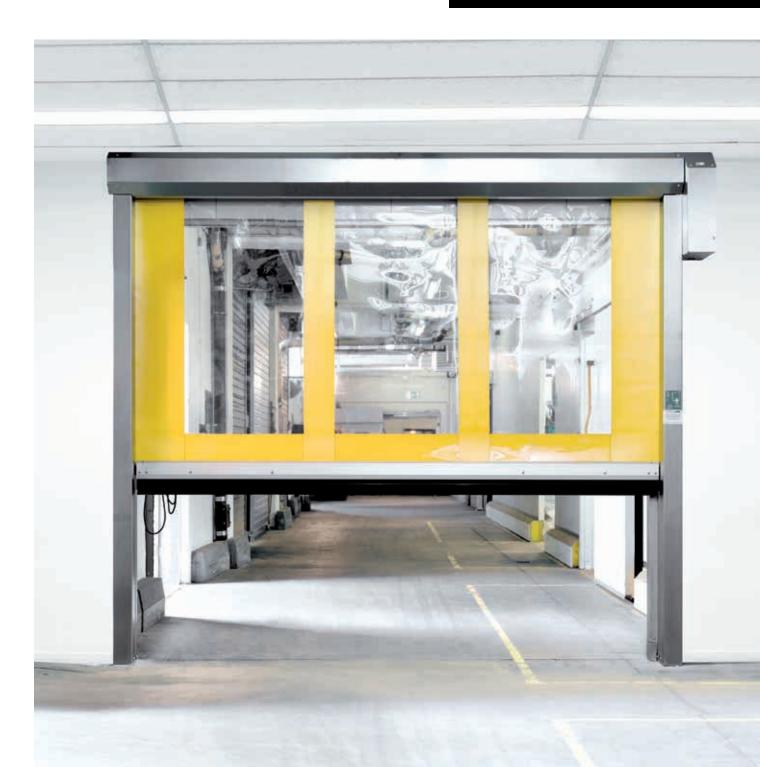
The heavy duty roll-up door EFA-SRT<sup>®</sup> is a real all-rounder! It can be used as an inside door or as an additional hall closure. The high-speed roll-up door EFA-SRT<sup>®</sup> Premium is a high-quality solution especially for areas that are frequently used by forklifts. EFAFLEX roll-up doors are available in galvanised steel or stainless steel. For reliable, long-lasting operation of the roll-up doors, all components are streamlined and are characterised by high ease of maintenance.

# The economical interior door. **EFA-SRT® ECO**

The EFA-SRT<sup>®</sup> ECO roll-up door is an extremely economical door system. Special structural preparations are not necessary due to the space-saving design, for example, its very slim side door frames. Thus, the EFA-SRT<sup>®</sup> ECO can be applied in more situations than any other roll-up door.

# EFA-SRT° ECO AT A GLANCE:

- Ideal for material-handling technology
- Space-saving design
- Excellent price-performance
   ratio
- With optional crash protection
- Opening speed up to 2.0 m/s
- Closing speed up to 1.0 m/s
- Up to 150,000 operating cycles p.a.
- Standard sizes up to w=6,000 mm, h=7,000 mm





# EFA-SRT® VALUE AT A GLANCE:

- Leading light barrier as standard
- Slim line dimensions
- High door leaf tension
- Gearless drive
- Durable tear-resistant PVC curtain
- Opening speed up to 1.7 m/s
- Closing speed up to 0.8 m/s
- Up to 150,000 operating cycles p.a.
- Max. sizes, w=3,000 mm, h=3,500 mm

# The compact and robust interior door. **EFA-SRT® Value**

The economical EFA-SRT<sup>®</sup> Value high-speed roll-up door provides solid basic equipment. The gearless drive ensures high opening and closing speeds in continuous operation through power transmission by means of a chain. The integrated door leaf tensioning system keeps the door leaf permanently under tension during closing, which ensures perfect opening and closing of the curtain.

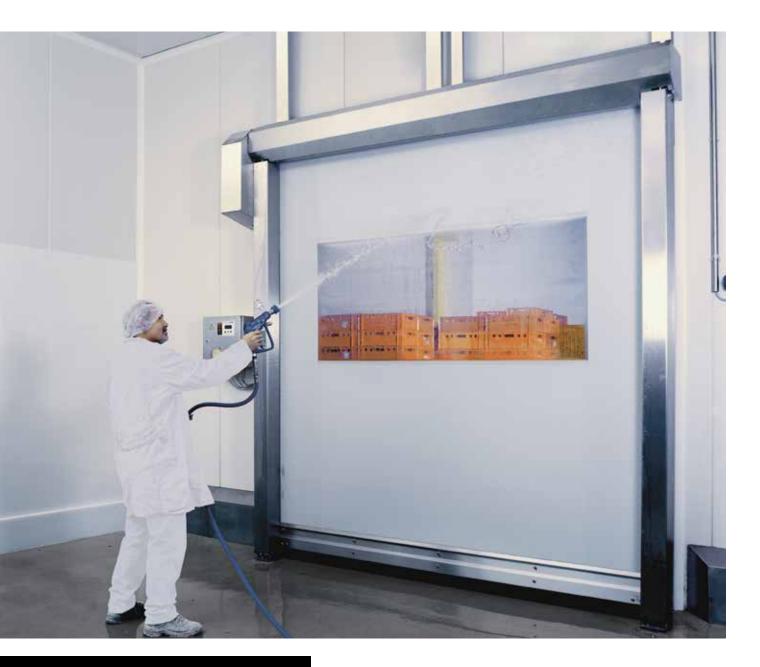


# The flexible multi-talent. EFA-SRT<sup>®</sup> Soft Touch

The EFA-SRT<sup>®</sup> Soft Touch high-speed roll-up door is an interior door specially designed for intensive industrial use. It is collision-resistant, reliable, space-saving and low-maintenance and therefore particularly recommended for areas of application with heavy passenger traffic. The door system has a collision protection and offers high operational safety thanks to a flexible closing edge.

# EFA-SRT° SOFT TOUCH AT A GLANCE:

- With frequency converters
- Control on the door frame
- With crash protection as standard
- Door closure is flexibly deformable
- Opening speed up to 2.0 m/s
- Closing speed up to 1.0 m/s
- Up to 150,000 operating cycles p.a.
- Standard sizes up to w=4,500 mm, h=5,000 mm



# EFA-SRT° EC AT A GLANCE:

- Easy to clean
- Space-saving design
- Slanted end shield and winding shaft cover
- In stainless steel design
- Frame extension is possible on one or both sides
- Opening speed up to 2.0 m/s
- Up to 150,000 operating cycles p.a.
- Standard sizes up to w=4,000 mm, h=4,000 mm

# The hygienic high-speed roll-up door. EFA-SRT<sup>®</sup> EC

The EFA-SRT<sup>®</sup> EC (Easy Clean) was developed in close cooperation with the food industry. The hygienic high-speed roll-up door is the optimal solution for all internal passages with high requirements regarding hygiene, for example in the food industry. The EFA-SRT<sup>®</sup> EC is the only hygienic roll-up door for the food industry recommended by the German Association of Food Inspectors (BVLK).

# The slim all-rounder. EFA-SRT<sup>®</sup> EasyFit

The EFA-SRT<sup>®</sup> EasyFit offers an outstanding price-performance ratio and a very easy and quick installation. Thanks to its space-saving and slim design, even two door systems can be installed flush next to each other. The EasyFit can withstand even the highest loads, as up to 150,000 load changes per year are possible and it can be opened at up to 1.5 meters per second. At the same time, the door light grid also ensures that the highest safety standards are guaranteed.

## EFA-SRT® EASYFIT AT A GLANCE:

- Very quick assembly
- Space-saving and slim design
- Top price/performance ratio
- Increased security thanks to door light grid
- Opening up to 1.5 m/s
- Closing up to 1.0 m/s
- Up to 150,000 operating cycles p.a.
- Standard sizes up to W=4,000 mm, H=4,000 mm







# High-speed folding doors The perfect aesthetics and

aesthetics and functionality.



# EFA-SFT<sup>®</sup> AT A GLANCE:

- Fast, robust, economical
- Minimal space requirement
- Excellent priceperformance ratio
- Opening speed up to 2.5 m/s
- Closing speed up to 1.0 m/s
- Up to 150,000 operating cycles p.a.
- Standard sizes up to w=5,250 mm, h=7,000 mm

# The folding door for outside and inside.

The EFA-SFT<sup>®</sup> combines functionality and aesthetics. Due to the modular structure, it is easy to repair and low-maintenance. Particularly large doors are fitted with special floor stoppers, to additionally stabilise the closed wing in the middle area. If neccesary, the integration of pedestrian doors is also possible.

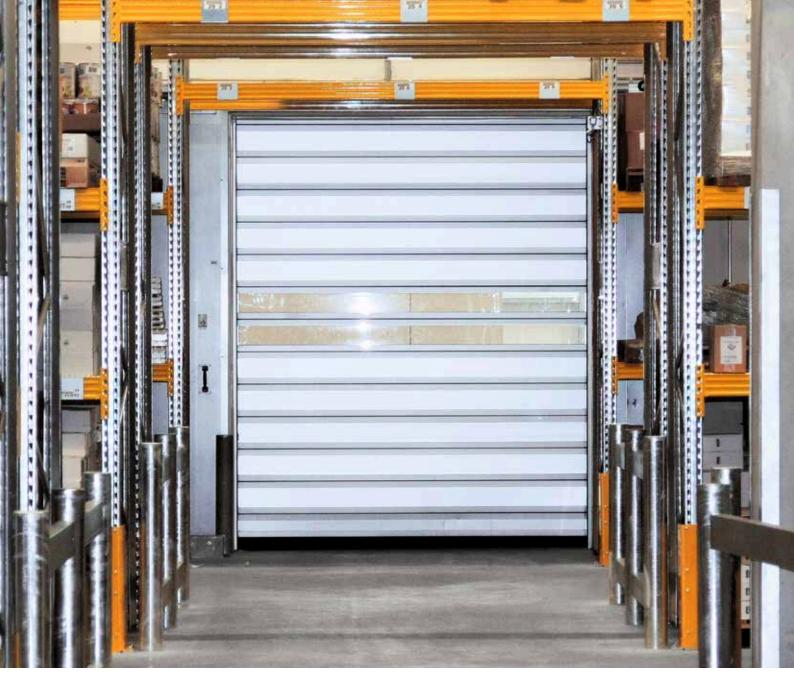




## Deep freeze Constant temperatures and low energy consumption.

Doors in cooled spaces must withstand extremely high loads. Top quality and perfect workmanship are paramount for ensuring that all components are absolutely resistant to cold and humidity. Moreover, it is essential to avoid door downtime, otherwise the cold could escape and goods could thaw, which would result in higher energy consumption and costly waste.

EFAFLEX high-speed doors for deep freeze areas operate reliably, open and close in a few seconds and thus minimise air and temperature exchange. Thanks to innovative door designs with thermally separated door cases and laths, our high-speed doors for deep freeze areas close almost hermetically and ensure excellent thermal insulation.



#### EFA-SST° ISO-60 AT A GLANCE:

- Max. heat insulation with EFA-THERM<sup>®</sup> laths
- k-value up to 0.8 W/m<sup>2</sup> K
- 60 mm thick door leaf
- Opening speed up to 2.5 m/s
- Closing speed up to 1.0 m/s
- Up to 250,000 operating cycles p.a.
- Standard sizes up to w=6,000 mm, h=6,000 mm

# The lock-up door for thermo-regulated zones. **EFA-SST® ISO-60**

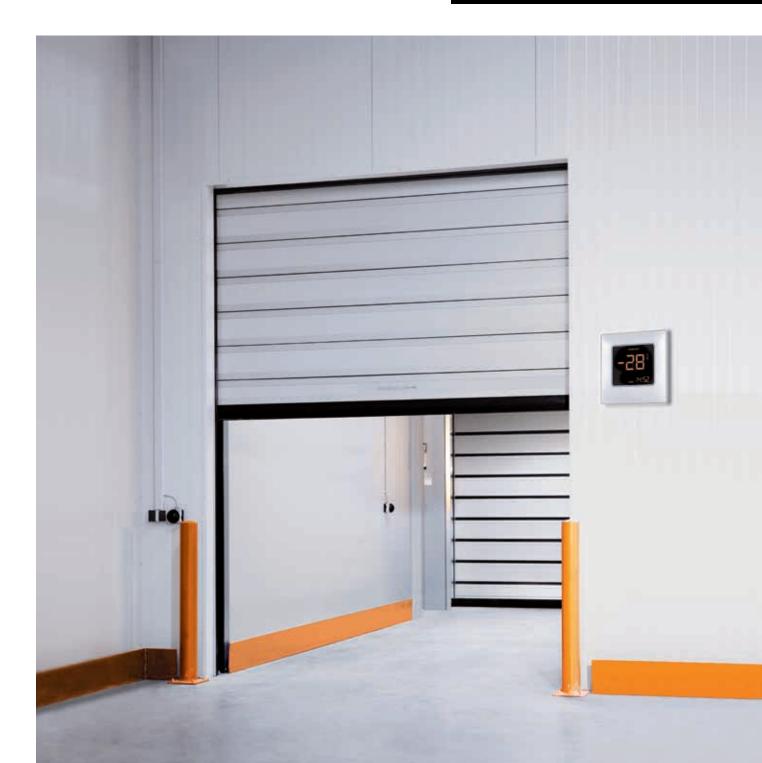
Doors in cooled spaces must withstand extremely high loads. Top quality and perfect workmanship are paramount for ensuring that all components are absolutely resistant to cold and humidity. EFA-SST<sup>®</sup> ISO 60 is the ideal closing door for frequent openings with high requirements for insulation, as is the case in cooling rooms. The EFA-SST<sup>®</sup> ISO-60 combines two EFAFLEX door technologies into one innovative solution: the spiral and highly insulating laths. In addition, high-quality seals prevent air and temperature exchange. The combination of these components makes the EFA-SST<sup>®</sup> ISO-60 a supremely insulated door.

# The specialist door for minus degrees. **EFA-SST® TK-100**

The EFA-SST<sup>®</sup> TK-100 high-speed spiral door is the first true single-door solution for freezer areas. In addition to the highest opening and closing speeds, it achieves the best insulation values for spiral doors and thus represents a high-quality solution for every deep-freeze room.

#### EFA-SST° TK-100 AT A GLANCE:

- Optimal single door solution
- Air permeability class 5 according to DIN 12426
- Frames and laths thermally separated
- Almost hermetically sealed
- Opening speed up to 2.0 m/s
- Closing speed up to 0.5 m/s
- U value up to 0.62 W/m $^{2}$ K
- Up to 200,000 operating cycles p.a.
- Standard sizes of up to w=4,000 mm, h=6,500 mm





## Machine protection. Highest safety standards and smooth processes.

Stable production cycles as well as rapid changes between product sealing and further processing without downtimes lead to increased demands on automated processes. Nevertheless, the safety of employees in production and manufacturing is of utmost importance, where the risk of incidents and accidents should be minimised.

Machine protection doors from EFAFLEX meet the highest safety standards for the protection of man and machine, all whilst guaranteeing smooth processes in your production. Our product portfolio for machine protection includes both high-speed roll-up doors and high-speed spiral doors.



#### EFA-SRT<sup>®</sup> MS PERFORMANCE AT A GLANCE:

- Functional safety performance level »d«
- Up to 1,000,000 cycles per year
- Transparent, easy-to-open door frames
- Self-assembly possible
- Rotatable drive in 45-degree increments
- Maximum speed up to 2.0 m/s
- Door curtain made from flexible PVC
- Life cycle 12 years
- Standard sizes of up to w=3,500 mm, h=3,500 mm

## The powerful machine protection door. EFA-SRT<sup>®</sup> MS Performance

The EFA-SRT<sup>®</sup> MS Performance can be flexibly adapted to the individual needs of custom requirements. Attachment components and fence connections can be mounted on the newly developed frames made of extruded aluminum profiles. In total, it is possible to optionally integrate up to four limit switches into the frames. This very low-maintenance gate features, among other things, a foldable cover and detachable cable covers, which speeds up and facilitates servicing. Additionally, the transparent frame covers make it possible to install LED strips for a traffic light function.

## The compact door for machine safety. **EFA-SRT® MS**

Due to its space-saving and compact design, the EFA-SRT<sup>®</sup> MS high-speed roll-up door satisfies all requirements for optimum integration into the required safety guard. The door leaf is fully transparent and equipped with warning strips as a standard. Coloured, highly tear-resistant and transversely stable curtains as well as welding protection curtains are also readily available. All curtain versions are, of course, free of substances which are detrimental to paint adhesion.

#### EFA-SRT<sup>®</sup> MS AT A GLANCE:

- Functional safety performance level »d«
- Maximum speed up to 1.8 m/s
- Door curtain made from transparent flexible PVC
- Special curtains are available on request
- Up to 250,000 cycles p.a.
- Maximum of 7 cycles per minute
- Life cycle 12 years
- Standard sizes of up to w=5,000 mm, h=3,500 mm





#### EFA-SRT® MS USD AT A GLANCE:

- Use as a movable separating safety guard
- Door leaf made of flexible, transparent PVC
- Functional safety performance level »d«
- Opening speed up to 1.8 m/s
- Up to 250,000 operating cycles p.a.
- Maximum of 7 cycles per minute
- Life cycle of 12 years

## The upside-down high-speed door. EFA-SRT<sup>®</sup> MS USD

The EFA-SRT<sup>®</sup> MS USD is the first EFAFLEX machine safety door that closes from the bottom up. This reliable, space-saving and low-maintenance upside-down high-speed door was developed specifically for heavy-duty industrial applications. A particularly powerful pulling device which pulls the end-shield upwards is installed in the door cases.



### Machine protection door for the industry. EFA-SST<sup>®</sup> MS

The EFA-SST<sup>®</sup> MS high-speed spiral door has been specially developed for industrial applications, as stand-alone separating safety guard that fulfils all requirements for a safe and modern machine protection door. We are the only manufacturer of industrial doors to also implement our spiral technology and the flexible hinge chain for optimum performance in our machine protection doors.

### EFA-SST®MS AT A GLANCE:

- Functional safety performance level »d«
- Opening speed up to 2.7 m/s
- Compact extruded aluminium laths
- Up to 250,000 cycles p.a.
- Maximum of 7 cycles per minute
- Life cycle of 12 years
- Standard sizes of up to w=3,000 mm, h=3,000 mm



## Clean rooms Maximum air tightness and hygienic design.

Modern development and production processes in research and industry require special environmental conditions in which the concentration of air-borne particles may not exceed a certain level. Clean room doors from EFAFLEX are perfectly adapted to the requirements in controlled production zones.

They stand out due to their high air tightness in combination with a sophisticated door leaf guide, in order to prevent unwanted air exchange in the event of pressure differences. The smooth surface structure and the edgeless design of the high-speed doors facilitate cleaning and minimise particle deposits.



## The special door for clean rooms. EFA-SRT<sup>®</sup> CR Premium

With the EFA-SRT<sup>®</sup> CR Premium high-speed roll-up door, EFAFLEX has developed a door for the specific requirements of clean rooms (GMP). Even with high pressure on the door curtain, the air exchange is constantly reduced to a minimum, which increases the service life of air filters. The door model offers an outstanding, hygienic design with reduced surfaces to prevent particle deposits.

#### EFA-SRT° CR PREMIUM AT A GLANCE:

- Almost airtight
- Smooth surface structure
- Also suitable for air locks
- Opening speed up to 1.0 m/s
- Closing speed up to 0.5 m/s
- Up to 150,000 operating cycles p.a.
- Standard sizes up to w=2,500 mm, h=3,000 mm





#### EFA-SRT° CR EFFICIENT AT A GLANCE:

- Almost airtight
- Extremely slim frame
- Certified up to ISO Class 6
- Opening speed up to 0.8 m/s
- Closing speed up to 0.5 m/s
- Up to 100,000 operating cycles p.a.
- Standard sizes up to w=3,000 mm, h=3,500 mm

## The efficient clean room door. EFA-SRT<sup>®</sup> CR Efficient

The EFA-SRT<sup>®</sup> CR Efficient high-speed roll-up door was specially designed for use in clean rooms with medium requirements. The particularly narrow door frames allow for a space-saving and visually appealing installation, even in confined spaces. Thanks to an integrated absolute encoder, the door can immediately return to automatic operation even after a power failure, without the need for a manual synchronisation run.

# The hermetic vertical sliding hatch. **EFA-HVS® CR**

The EFA-HVS<sup> $\circ$ </sup> CR is the optimal hermetic locking device in confined spaces. The maximum size of the EFA-HVS<sup> $\circ$ </sup> CR is 1,300 x 1,500 millimetres. Due to its small size, the vertical sliding hatch can withstand extremely high pressure differences.

#### EFA-HVS° CR AT A GLANCE:

- Door leaf made of stainless steel
- Almost airtight
- Vertical movement
- Opening speed up to 1.0 m/s
- Closing speed up to 0.75 m/s
- Up to 150,000 operating cycles p.a.
- Standard sizes up to w=1,300 mm, h=1,500 mm







#### EFA-SRT<sup>®</sup> CR-C AT A GLANCE:

- Opening speed up to 2.0 m/s
- Designed for 200,000 load changes p.a.
- Sizes: w=3,500 mm, h=3,500 mm
- EFA-TRONIC<sup>®</sup> control fully integrated in the construction (ISO Class 6)
- 2 mm Transilon curtain in various colours with/without viewing window
- Stainless steel or powder coating according to RAL
- TÜV Certification for clean room Class 6 or 7 according to ISO 14644-1
- Manual opening by spring force

## The space-saving door for clean rooms. EFA-SRT<sup>®</sup> CR-C

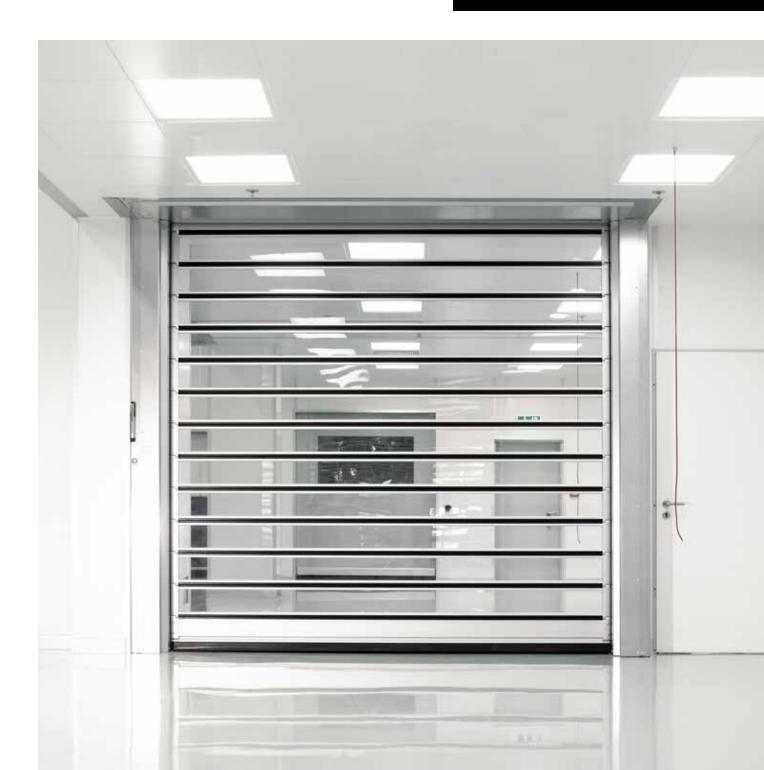
With the EFA-SRT<sup>®</sup> CR-C, EFAFLEX has developed a door for the specific requirements of the clean room industry, where efficient sealing and installation dimensions are critical factors. The door is TÜV-certified for use in clean rooms of ISO Class 6 or 7. It is characterised by its compact design with minimal space requirement and slim frames, whilst the EFA-TRONIC<sup>®</sup> control is fully integrated into the construction (version ISO Class 6).

## The turbo door for full visibility. EFA-STT<sup>®</sup> CR

If speed is of the essence, the EFA-STT<sup>®</sup> CR transparent clean room door is the best solution. Thanks to its spiral, this highspeed door opens and closes reliably at a speed of up to 2.5 m/s. It is particularly useful when the exchange of pressure and atmosphere is to be minimised.

#### EFA-STT° CR AT A GLANCE:

- The door leaf consists at 70% of crystal clear acrylic glass
- Almost airtight
- Also for material locks
- Opening speed up to 2.5 m/s
- Closing speed up to 0.75 m/s
- Up to 200,000 operating cycles p.a.
- Standard sizes up to w=4,000 mm, h=5,000 mm





## Burglary protection Certified security without limitations.

Burglary and robbery are not uncommon and are usually planned beforehand and well organised by criminal networks. Alongside their own employees, machines, materials and stock are the most important assets for many companies. This makes reliable and secure burglary protection all the more important.

Certified security doors from EFAFLEX help to ensure maximum security for your business without having to sacrifice the speed of an efficient high-speed door. Your processes remain quick and efficient while your valuables receive the best protection.

### The most secure high-speed door in the world. EFA-SST<sup>®</sup> Secure

With the EFA-SST<sup>®</sup> Secure, you can provide maximum protection to the people around you without having to forego the speed of an efficient high-speed door. The door fits seamlessly into the structure of the building and impresses with top opening and closing speeds. Your processes remain quick and efficient while your valuables receive optimum protection. With our Secure doors you will find the perfect solution for virtually every security application.

#### EFA-SST° SECURE (RC 3) AT A GLANCE:

- Resistance Class RC 3 in accordance with DIN/TS 18194:2020 - RC 3
- Patented technology
- Tested and certified by ift Rosenheim
- Automatic locking during every closing procedure
- Emergency operation by tension springs
- Opening speed up to 1.0 m/s
- Closing speed up to 0.6 m/s
- Up to 250,000 operating cycles p.a.
- Max. sizes, w=4,000 mm, h=5,000 mm

#### EFA-SST<sup>®</sup> SECURE (RC 4) AT A GLANCE:

- Resistance Class RC 4 in accordance with DIN/TS 18194:2020 – RC 4
- Patented technology
- · Tested and certified by ift Rosenheim
- Automatic locking during every closing procedure
- Emergency operation by tension springs
- Opening speed up to 1.0 m/s
- Closing speed up to 0.6 m/s
- Up to 250,000 operating cycles p.a.
- Max. sizes, w=4,000 mm, h=5,000 mm

## The tailored safety solution. EFA-SST<sup>®</sup> Efficient

Cramped installation situations require a tailored solution which fits in with the given conditions. With the high-speed spiral door EFA- SST<sup>®</sup> Efficient, EFAFLEX offers a compact and springless door which can also be positioned in locations with confined installation space. The scope of application for the EFA-SST<sup>®</sup> Efficient ranges from usage in indoor areas to usage as a secure hall closing door. With an on-site canopy, the high-speed door can also be installed outdoors.

#### EFA-SST<sup>®</sup> EFFICIENT AT A GLANCE:

- Slim frame for confined installation locations
- Chain drive ensures minimal maintenance costs
- Resistance Class RC 2 in accordance with DIN V ENV 1627-1630:1999-04
- Opening and closing speed up to 0.5 m/s
- Up to 150,000 operating cycles p.a.
- Max. sizes, w=4,000 mm, h=5,130 mm
- Tested and certified by ift Rosenheim





## Explosion protection Reliable and effective door solutions.

In many companies, there are areas of production where potentially explosive substances are used, which can create a dangerous explosive atmosphere. Under no circumstances should sparks be allowed to form here. The areas are classified into so-called EX Zones depending on the probability of the occurrence of this atmosphere. These areas are: 0, 1, 2, 21 and 22.

The high-speed doors in the EFAFLEX EX Series are specially designed for use in potentially explosive atmospheres in accordance with ATEX Directive 2014/34/EU. In this respect, the mechanical explosion protection is aligned to the requirements of the corresponding EX Protection Zone. All the doors in the EX Series are suitable for use in EX Zones 1 and 2 and optionally, upon request, in EX Protection Zones 21 and 22. Therefore guaranteeing the highest levels of safety for employees, products and facilities.



#### EFA-SST° EX AT A GLANCE:

- For use in explosion Protection Zones 1 and 2, optionally on request in EX Protection Zones 21 and 22
- Highest wind load capacity
- Suitable for external and internal applications
- Opening speed up to 1.0 m/s
- Closing speed up to 0.5 m/s
- Up to 200,000 operating cycles p.a.
- Standard sizes up to w=4,000 mm, h=5,000 mm

## The hall door for potentially explosive atmospheres. EFA-SST<sup>®</sup> EX

The EFA-SST<sup>®</sup> EX is designed for both outdoor and indoor use in potentially explosive atmospheres. In addition to high opening and closing speeds, it particularly impresses with a solid door leaf with high wind resistance and optimal sealing. The door leaf consists of double-walled aluminium laths that be combined with transparent laths.

It is also possible to have the door leaf composed entirely of transparent laths. Due to the no-contact support of the laths in the spiral and the associated wear-free movement, their transparency is guaranteed for many years.

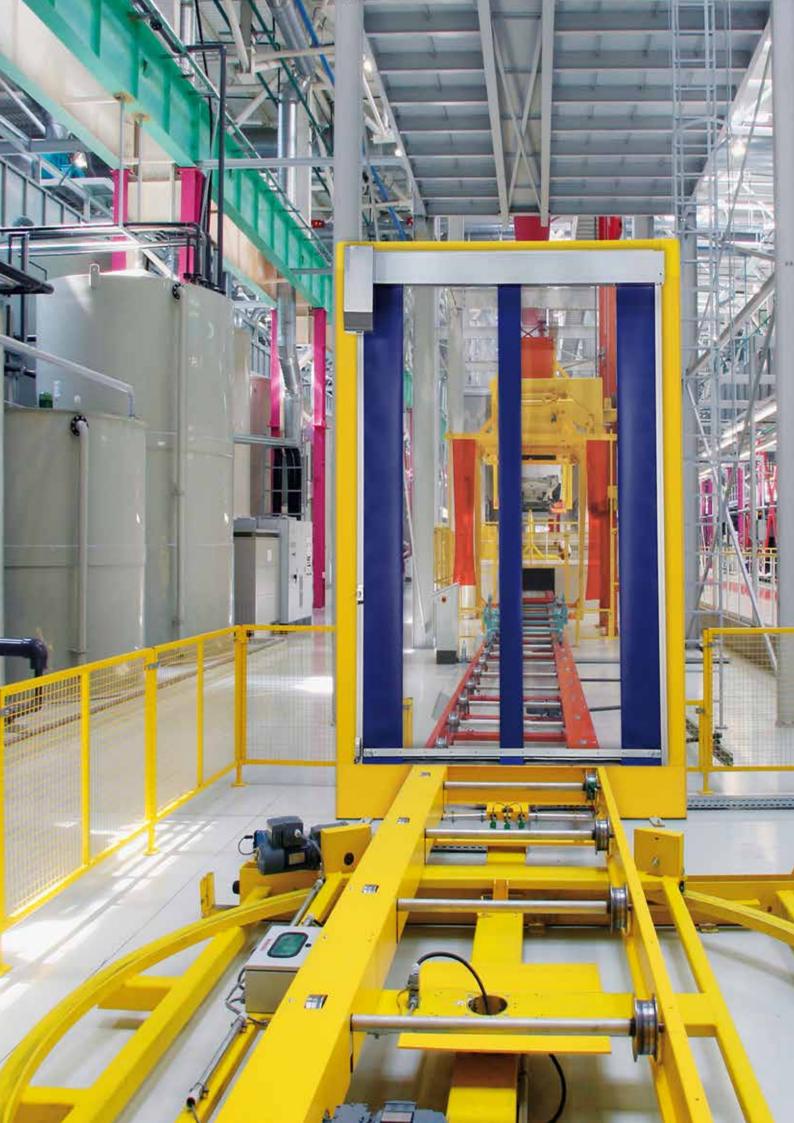
# The interior door for explosive atmospheres. **EFA-SRT® EX**

In addition to a standard frequency converter and a microprocessor control, the EFA-SRT<sup>®</sup> EX for indoor use includes all typical basic characteristics of state-of-the-art door technology. This includes dynamic door leaf tension and emergency operation via spring systems in the door cases. A hand lever on the door case allows for quick emergency operation of the door system, e.g. in case of power failure. We use a black, non-transparent ATEX special curtain as the door leaf.

#### EFA-SRT<sup>®</sup> EX AT A GLANCE:

- For use in explosion protection zones 1 and 2, optionally on request in EX Protection Zones 21 and 22
- Heavy-duty inside door
- Opening speed up to 1.0 m/s
- Closing speed up to 0.5 m/s
- Up to 150,000 operating cycles p.a.
- Standard sizes up to w=4,000 mm, h=4,000 mm

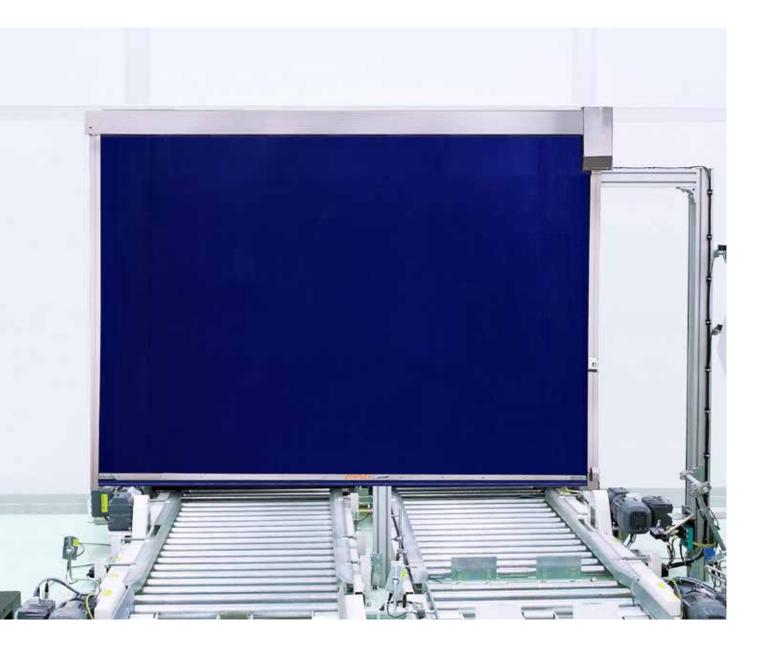




## Intralogistics Seamless flow of materials and maximum flexibility.

In intralogistics, effective and efficient interaction between control and software systems, conveying and storage technology as well as planning and process design is of central importance in order to ensure a seamless flow of materials. EFAFLEX high-speed doors are designed for all applications within intensive logistics processes and impress with their flexibility and versatility.

The modular structure of the individual components contributes to a professional flow of materials, perfect transportation and efficient logistics. Thanks to their space-saving and compact design, intralogistics doors can be perfectly integrated into the required safety guard and meet the highest safety standards.



#### EFA-SRT® MTL AT A GLANCE:

- Power-driven high-speed roll-up door for industrial and commercial use in the materials handling sector
- Particularly suitable for confined space applicatons
- Opening speed up to 1.5 m/s
- Closing speed up to 1.0 m/s
- Up to 250,000 cycles p.a.
- Sizes up to approx. w=3,000 mm, h=3,000 mm

## The high-speed roll-up door for logistics. EFA-SRT<sup>®</sup> MTL

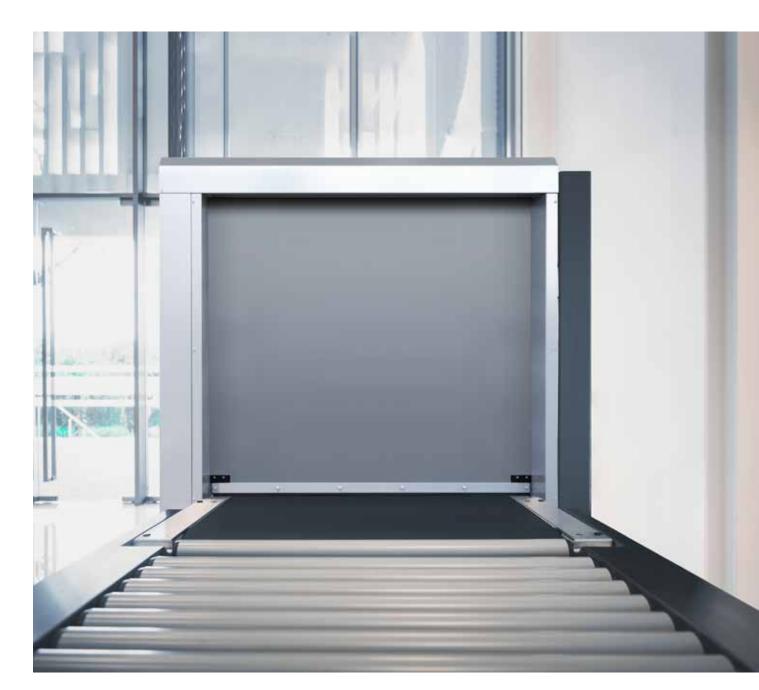
The EFA-SRT<sup>®</sup> MTL is designed for all applications within intensive logistics processes and is particularly suitable for commercial and industrial use in enclosed areas that are not exposed to wind or other weather conditions. With a multitude of application, equipment and combination options, the high-speed roll-up door (SRT) spans a wide range of conceivable applications in the eponymous spectrum of "Material – Transport – Logistics" (MTL).

## The customised plant solution. EFA-SRT<sup>®</sup> MHT Compact

Capable of up to 500,000 load changes per year, the innovative EFA-SRT<sup>®</sup> MHT Compact performs the highest number of openings and closings on the market. The door also impresses with its compact design with control integrated into the frames and a self-supporting construction. This allows it to be flexibly integrated and customised into complex systems, such as baggage handling at airports.

### EFA-SRT® MHT COMPACT AT A GLANCE:

- Door system for industrial and commercial purposes in materials handling technology
- Control system completely integrated in construction
- Self-supporting frames due to floor fixation
- 3 cycles per minute
- Opening speed up to 1.5 m/s
- Up to 500,000 load changes p.a.
- Standard sizes up to w=1,600 mm, h=1,600 mm



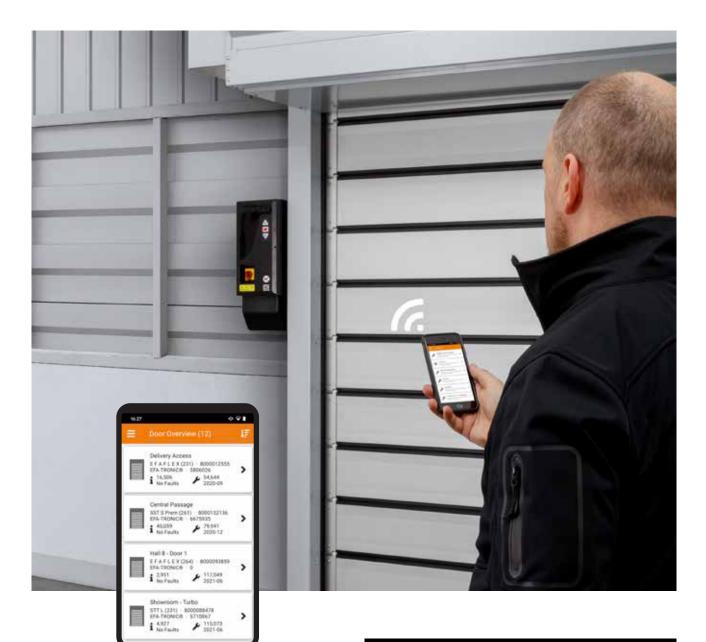


# Periphery & accessories

## equipment for best usability.

In addition to its broad spectrum of highspeed doors for a wide range of applications, EFAFLEX also offers a large selection of innovative accessories and an extensive range of peripheral products to help you to control your door systems. Almost all of our doors are equiped with an absolute encoder and frequency converter.

EFA-SmartConnect<sup>®</sup> is the IoT solution from EFAFLEX for the secure, intelligent networking and management of your industrial doors. With our free app, you have a flawless overview of the current status of your doors in real time. In addition, unique safety systems such as door light grids, laser scanners and approach surveillance ensure the full protection of the area around your door system, thereby protecting people, doors, and vehicles.



### The intelligent networking of your doors. EFA-SmartConnect®

With EFA-SmartConnect<sup>®</sup>, EFAFLEX offers the IoT solution for intelligent, networked doors. The free-of-charge user-friendly app facilitates central monitoring and displays the status of all doors clearly and in real time. According to the "Diagnosis – Service – Maintenance" principle, you can prevent faults in real time and plan the maintenance in advance. This not only minimises downtimes, but also reduces operating costs.

### EFA-SMARTCONNECT® AT A GLANCE:

- All doors at a glance on your smartphone
- Straightforward, anticipatory planning of maintenance and repair work
- Rapid diagnosis of problems and digital service notifications sent directly to EFAFLEX
- Prevention of downtimes and unnecessary costs
- Possibility of using the existing Wi-Fi and LAN network
- Data sovereignty remains in the hands of the user
- No registration necessary
- Independent of mobile networks

## Activator and safety system, all-in-one. EFA-SCAN<sup>®</sup> laser scanner

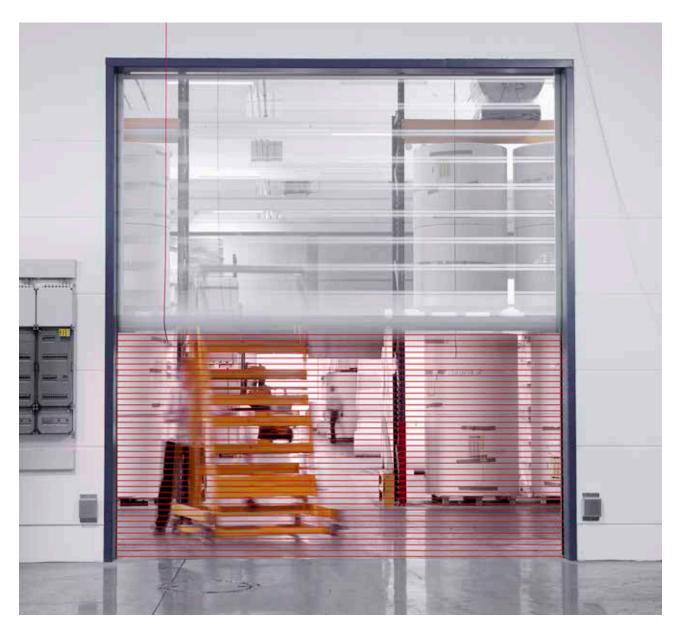
The EFA-SCAN<sup>®</sup> laser scanner scans a threedimensional security field based on laser beams in front of the door. With this, it detects vehicles and tracks their movement on a gapless basis with the use of intelligent direction detection. The door then opens as required.

Sophisticated software algorithms prevent the door from opening during rain, snow, fog, or extraneous light, which also makes the EFA-SCAN<sup>®</sup> suitable for outdoor installation. The innovative laser technology guarantees an incomparably secure and situationdependent opening of your door.

#### EFA-SCAN° AT A GLANCE:

- Comprehensive approach surveillance
- · Gapless capturing of vehicles
- Reliably ignores outside traffic
- High immunity to environmental influences (including fog)
- Performance level C according to EN 13849-1





## The self-sufficient safety system. EFA-TLG<sup>®</sup> door light grid

Almost 90% of all collisions occur in the lower part of a door. Our TÜV-certified EFA-TLG<sup>®</sup> infrared light grid prevents collisions of this kind right from the start. For the purpose of protection, the completely selfmonitoring system is installed directly into the lateral door guidance system. EFA-TLG<sup>®</sup> monitors the door closing level up to a height of 2.5 metres.

An almost flat light grid generates infrared rays which can detect even the smallest obstacles without contact. If the system detects an obstacle, the closing movement is immediately stopped and/or is not initiated in the first place. This unique technology therefore protects people, doors, vehicles, and materials.

### EFA-TLG° AT A GLANCE:

- Close visual monitoring of the door closing level up to a height of 2,500 mm
- Risk-adapted responses to detected objects (people, vehicles, materials, etc.)
- TÜV-certified safety system
- All safety standards surpassed

# Individual and reliable approach surveillance. Sensors and detectors

EFAFLEX offers you a range of different systems to enable you to adapt the approach surveillance to the respective requirement. Our portfolio ranges from well-known solutions such as induction loops, active infrared sensors, or radar motion detectors to the

latest technological innovations that intelligently combine radar detectors and infrared technology in a single system, thus leveraging the benefits of both technologies.

### RADAR-MOTION DETECTOR



### **ACTIVE INFRARED SENSOR**



### **INDUCTION LOOPS**



### Contactless door activation for maximum hygiene. Contactless opening systems.

In many industries, the way in which an industrial door can be opened is of key importance. In this respect, safety and ease-of-use come first. EFAFLEX offers you a range of contactless opening systems which are ideal for hygiene-sensitive areas such as clean rooms, hospitals, the pharmaceutical industry, photovoltaics and battery production.

### **CLEAR WAVE**



### **MAGIC SWITCH INDUS**



#### MAGIC SWITCH INDUS AT A GLANCE:

- Contactless opening sensor for industrial doors
- The optimal solution for industrial environments
- Hygienic and hard-wearing design
- High degree of protection against the penetration of dust and water

# Intelligent and innovative door control. EFA-TRONIC<sup>®</sup> door control

In addition to the topics of 'Connectivity' and 'Sensors and Safety,' EFAFLEX also offers solutions in the field of gate controls. For this purpose, we have our proven EFA-TRONIC<sup>®</sup> control panel, as well as the additional versions EFA-TRONIC<sup>®</sup> Light and EFA-TRONIC<sup>®</sup> Professional with a robust steel casing available. These not only feature a modern design but also offer the highest functionality, durability, and full compatibility. Furthermore, our gate controls are equipped with microprocessors of the latest generation.

Highest functionality, a compact form factor, and a modern design characterize the EFA-TRONIC<sup>®</sup> control panel, housed in a black polycarbonate casing. The basic equipment includes a main switch, a membrane keyboard, and a vacuum fluorescence display with function and diagnostic indicators. As standard, there are over 20 inputs, as well as safety functions and three bus systems available.







EFA-TRONIC®

#### EFA-TRONIC® AT A GLANCE:

- Compact design
- Durable plastic casing
- Several versions possible (RAL colours, stainless steel, hygienic, UL, etc.)
- Protection class I/IP 65
- IoT module for the integration of EFA-SmartConnect<sup>®</sup>

# The perfect solution for every industry.

As the global market leader in industrial high-speed doors, we offer our customers industry solutions which are tailored to them. Our customer base includes global players as well as small and medium-sized companies and public institutions. With more than 45 years of experience, we are experts and know the idiosyncrasies and specific requirements of each particular industry.





### **BEVERAGE INDUSTRY:**

We offer solutions with minimal operational noise, excellent insulation and high opening and closing speeds.

### **PHARMACEUTICAL INDUSTRY:**

Our special doors for clean rooms score with efficient sealing, low space requirements and hygienic cleanliness.



### **FOOD INDUSTRY:**

EFAFLEX offers door solutions for deep-freeze, wet areas and temperature-controlled rooms that meet the highest hygiene requirements.

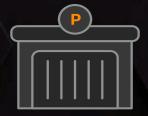


Our individual door solutions for the automotive industry enable fast, smooth and trouble-free processes.



### **AIRPORT:**

Our door solutions for the modern airport are fast, efficient, reliable and able to withstand high wind loads.



### **CAR PARKS**:

Rely on maximum object protection, highest load capacity and high closing speeds with our door solutions.



### **SECURITY SECTOR:**

With security solutions from EFAFLEX, you effectively protect yourself against theft and vandalism.



### LOGISTICS:

Speed up your logistical processes and rely on the highest safety standards with our tailormade doors.

# Individual solutions for individual requirements.

EFAFLEX offers you high-speed doors which are unique in terms of quality and service, and which further improve and fast-track your business processes. We work together with you to develop suitable custom solutions which are perfectly tailored to your individual requirements.





# The EFAFLEX service philosophy

# A team you can rely on.

The right partner – who stands by you throughout the planning process, finds solutions and answers to every challenge, relieves you of your workload and provides security, a partner who is at your service, 24/7: that partner is called EFAFLEX.

We offer you an all-round carefree package for your doors from all manufacturers – true to the EFAFLEX philosophy: Reliable SERVICE FROM ONE SINGLE SOURCE.

# Your all-round carefree package



EFAFLEX maintains a comprehensive, globally operating service network with its own subsidiaries and service partners, which can respond closely and quickly. To date, customers in more than 80 countries use our doors and our professional service. EFAFLEX has a wide range of services and programs that offer an economical solution for every need.

Whether it's spare parts or fault management, our repair and maintenance service or individual training: our after-sales portfolio covers every requirement surrounding your door system. International companies can therefore find an experienced and high-performance partner in EFAFLEX – a global premium service provider.

### **EXCELLENT SUPPORT**



Our highly qualified service technicians are available to you at a large number of locations around the world. With our comprehensive service network, you usually have a direct contact person on site who can advise you competently on all matters.

# REPAIR & TROUBLESHOOTING



When it comes to repairs and damage, time is money. That is why we are there for you personally - around the clock. Our trained service staff and technicians guarantee professional and competent support for your door system – worldwide and throughout the entire product life of your system.

### **SPARE PARTS SERVICE**



Spare parts must be on site within the shortest possible time and installed quickly and competently - we take care of that. Because EFAFLEX is your service partner for spare parts – for both our own door systems and for those of other manufacturers.

# TRAININGS & GLOBAL SERVICE NETWORK



The high standards we set for our products and our service require highly trained employees. Through regular training of our global service network, we provide the proper know-how to meet all your concerns and needs.

### **MAINTENANCE & TESTING**



EFAFLEX doors meet the highest demands in terms of performance, functionality and quality. To ensure that this remains reliable and permanent, regular maintenance and testing are required. Take advantage of our knowhow to keep your system availability at a constantly high level and to be able to maintain your operating processes unhindered and safely.



# Technical details

4

HIGH-SPEED SPIRAL DOORS	86
HIGH-SPEED ROLL-UP DOORS	90
HIGH-SPEED FOLDING DOORS	92
HIGH-SPEED DOORS DEEP-FREEZE	93
HIGH-SPEED DOORS MACHINE PROTECTION	94
HIGH-SPEED DOORS CLEAN ROOM	95
HIGH-SPEED DOORS BURGLARY PROTECTION	96
HIGH-SPEED DOORS EXPLOSION PROTECTION	97
HIGH-SPEED DOORS INTRALOGISTICS	98

## Technical details High-speed spiral doors

				Premium			ECO
	Size	L	s	ÜS	XL	XXL	L
Application	Interior door	•	•	•	•	•	•
	Lock-up doors	•	•	•	•	•	•
Wind load max.*	According to DIN EN 12424 class	2 - 4	2 - 4	2 - 4	0 - 2	2 - 4	2 - 4
Operating forces / safe closing	According to DIN EN 13241 class	fulfilled	fulfilled	fulfilled	erfüllt	fulfilled	fulfilled
Resistence against water ingress*	According to DIN EN 13241 class	3	3	3	3	1	3
Air permeability*	According to DIN EN 13241 class	3	3	3	3	3	3
Direct airborne sound insulation R <sub>w</sub> *	in dB according to DIN EN 717-1	24	25	26	26	26	24
U value maximum*	in W/m²K according to DIN EN 13241	1.52	0.91	0.66	0.66	0.54	1.52
Door size (in mm)	Width W max.	4,500	6,000	8,000	10,000	10,000	4,500
	Height H max.	5,000	6,000	8,000	6,600	12,000	5,000
Maximum door blade speed*	in m/s	2.5	1.5	1.2	1.0	0.5	1.0
Door blade guidance	Round Spiral	•	•	•	•	•	•
5	Oval Spiral	•	•	_	_	_	•
	Low-header	-	-	_	-	_	•
Steel design	Galvanized sheet steel frame	•	•	•	•	•	•
	Stainless steel	0	0	-	-	-	0
	Powder coated in RAL colours	0	0	0	0	0	0
Door blade	EFA-THERM® laths insulated/painted	•	•	•	•	•	•
	EFA-CLEAR <sup>®</sup> Vision laths double-walled, thermally separated	o	0	0	0	0	0
	EFA-CLEAR® Vision laths single-walled	0	0	-	-	-	0
	EFA-VENT <sup>®</sup> Ventilation laths	0	0	-	-	-	0
	EFA-ALUX® Aluminium laths	-	-	-	-	-	-
	Colour according to RAL (without vison panel)	0	0	0	0	0	0
Fire class	Building Material class DIN 4102	B2	B2	B2	B2	B2	B2
Weight balancing by		Spring	Spring	Spring	Feder	Spring	Spring
Designed for approx operating cycle	s per year	250,000	250,000	250,000	150,000	100,000	200,000
Drive	Electric motor	•	•	•	•	•	•
Control	EFA-TRONIC®	•	•	-	-	0	•
	EFA-TRONIC <sup>®</sup> Light	-	-	-	-	-	-
	EFA-TRONIC <sup>®</sup> Professional	0	0	•	•	•	0
	Main switch and foil keypad	•	•	•	•	•	•
Lead	Electricity connection 230 V/50 Hz	•	•	•	•	-	•
	Electricity connection 400 V/50 Hz	0	0	0	0	•	0
	Circuit breaker	16 A (K)	16 A (K)	16 A (K)	16 A (K)	16 A (K)	16 A (K)
Manual locking		•	•	•	•	•	0
Emergency operation	Automatic after manual activation	•	•	•	•	•	•
Safety Devices	EFA-TLG® door light grid in door closing line	•	•	•	•	•	0
	Contact edge	0	0	-	-	-	•
	Light barrier	0	0	-	-	-	•
	Approach area monitoring	0	0	0	0	0	0
	Light grid, external	0	0	0	0	0	0
Safety system including activator	EFA-SCAN <sup>®</sup> frame/bollard	0/0	0/0	0/0	0/0	0/0	0/0

• Standard, o upon request, - Not available, npd = No Performance Determined \*Depending on door blade, door blade guidance and door size, we reserve the right to make

### **S** Series

	E	FA-SST®								
	Basic	Essential			Classic				PS	
S	L	L	L	S	ÜS	L-N	S-N	PS-L	PS-N	PS-S
•	•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•	•
2 - 4	2 - 4	2 - 4	2 - 4	4	2 - 4	2 - 4	4	4	4	2
fulfilled										
3	3	2	0	0	0	npd	npd	2	-	2
3	3	0	2	2	2	npd	npd	1	-	1
25	24	20	23	25	25	23	25	23	23	23
0.91	1.52	1.67	5.8	5.6	5.6	5.8	5.7	6.5	6.6	6.5
6,000	4,500	4,500	4,000	6,000	8,000	4,000	6,000	4,000	4,000	6,100
6,000	5,000	5,000	5,000	7,000	7,000	4,000	5,000	4,000	4,000	4,000
0.9	0.5	0.5	2.0	2.0	1.5	1.5	1.5	2.0	1.5	1.5
•	•	•	•	•	•	-	-	•	-	•
•	•	-	•	•	•	-	-	-	-	-
•	-	-	-		-	•	•	-	•	-
•	•	•	•	•	•	•	•	•	•	•
0	0	-	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
•	•	•	-	-	-	-	-	-	-	-
0	0	0	_	_	_	_	_	_	_	_
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
-	_	_	•	•	•	0	0	•	0	•
0	0	0	0	0	0	0	0	0	-	0
B2										
Spring										
200,000	100,000	100,000	250,000	250,000	250,000	150,000	150,000	200,000	200,000	200,000
•	•	•	•	•	•	•	•	•	•	•
•	0	0	•	•	_	•	•	•	•	•
_	•	•		-	_		_	_	_	_
0	0	0	0	0	•	0	0	0	0	0
-	•	0	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•	•
16 A (K)										
10 A (K)		0	0	0 N (K)		0	0	0	0	0
•		-	-	-		-	•		-	
*	•	•	•	*	*	•	*	•	•	•
*				*	*		*			
*			•	*	*		*			
0	•	•	•	0	0	•	0	•	•	0
0	0	_	0	0	0	0	0	0	0	0
0/0	_	_	-/o	-/o	-/o	0	0	-/o	0	0/0
0/0			-/0	-/0	10	0	0	10	0	010

technical alterations!

### **Technical details High-speed spiral doors**

### **S** Series

EFA-STT®

	Size	L	S	ÜS	L-N
Application	Interior door	•	•	•	•
	Lock-up doors	•	•	•	•
Wind load max.*	According to DIN EN 12424 class	3 - 4	2 - 4	2 - 4	3 – 4
Operating forces / safe closing	According to DIN EN 13241 class	fulfilled	fulfilled	fulfilled	fulfilled
Resistence against water ingress*	According to DIN EN 13241 class	0	0	0	0
Air permeability*	According to DIN EN 13241 class	2	2	2	0
Direct airborne sound insulation ${\sf R}_{\sf W}^{*}$	in dB according to DIN EN 717-1	20	20	20	20
U value maximum*	in W/m²K according to DIN EN 13241	6.5	6.37	6.28	6.5
Door size (in mm)	Width W max.	4,000	6,000	8,000	4,000
	Height H max.	5,000	6,000	7,800	5,000
Maximum door blade speed*	in m/s	3.0	2.8	2.0	1.8
Door blade guidance	Round Spiral	•	•	•	_
	Low-header	-	-	-	•
Steel design	Galvanized sheet steel frame	•	•	•	•
	Stainless steel	0	0	-	0
	Powder coated in RAL colours	0	0	0	0
Door blade	EFA-CLEAR <sup>®</sup> Vision laths single-walled	•	•	•	•
	EFA-VENT® Ventilation laths	0	0	0	0
	EFA-ALUX® Aluminium laths	-	-	-	0
	Vision panel single-walled / double-walled	•/-	•/-	•/-	•/-
	Non transparent infill single-walled / doublewalled	0/-	o/-	o/-	o/-
	Colour according to RAL (without vison panel)	0	0	0	0
Fire class	Building Material class DIN 4102	B2	B2	B2	B2
Weight balancing by		Spring	Spring	Spring	Spring
Designed for approx operating cycle	es per year	200,000	200,000	200,000	120,000
Drive	Electric motor	•	•	•	•
Control	EFA-TRONIC®	•	•	-	•
	EFA-TRONIC <sup>®</sup> Professional	0	0	•	0
	Main switch and foil keypad	•	•	•	•
Lead	Electricity connection 230 V/50 Hz	•	•	•	•
	Circuit breaker	16 A (K)	16 A (K)	16 A (K)	16 A (K)
Manual locking		0	0	0	0
Emergency operation	Automatic after manual activation	•	•	•	•
Safety Devices	EFA-TLG <sup>®</sup> door light grid in door closing line	0	*	*	0
	Contact edge	•	*	*	•
	Light barrier	•	*	*	•
	Approach area monitoring	o	0	0	0
	Light grid, external	0	0	0	0
Safety system including activator	EFA-SCAN® frame/bollard	0/0	0/0	0/0	0/0

### **S** Series

#### EFA-STR®

	Size	L	S	S-N	L-N
Application	Interior door	•	•	•	•
	Lock-up doors	0	0	0	0
Wind load max.*	According to DIN EN 12424 class	2 - 3	2 - 3	2 - 3	2 - 3
Operating forces / safe closing	According to DIN EN 13241 class	fulfilled	fulfilled	fulfilled	fulfilled
Resistence against water ingress*	According to DIN EN 13241 class	0	0	npd	npd
Air permeability*	According to DIN EN 13241 class	1	1	npd	npd
Direct airborne sound insulation $R_w^*$	in dB according to DIN EN 717-1	12	12	12	12
U value maximum*	in W/m <sup>2</sup> K according to DIN EN 13241	6.1	5.95	6.0	6.1
Door size (in mm)	Width W max.	4,000	7,000	7,000	4,000
	Height H max.	5,000	6,000	5,000	5,000
Maximum door blade speed*	in m/s	4.0	3.2	3.2	3.2
Door blade guidance	Round Spiral	•	•	-	-
	Low-header	-	-	•	•
Steel design	Galvanized sheet steel frame	•	•	•	•
	Stainless steel	0	0	0	0
	Powder coated in RAL colours	0	0	0	0
Door blade	flexible fabric in different colours with/ without vison panel	0/●	0/●	0/●	0/●
Fire class	Building Material class DIN 4102	B2	B2	B2	B2
Weight balancing by		Spring	Spring	Spring	Spring
Designed for approx operating cycles	s per year	200,000	200,000	120,000	120,000
Drive	Electric motor	•	•	•	•
Control	EFA-TRONIC®	•	•	•	•
	EFA-TRONIC <sup>®</sup> Light	-	-	-	-
	EFA-TRONIC <sup>®</sup> Professional	0	0	0	0
	Main switch and foil keypad	•	•	•	•
Lead	Electricity connection 230 V/50 Hz	•	•	•	•
	Electricity connection 400 V/50 Hz	0	0	0	0
	Circuit breaker	16 A (K)	16 A (K)	16 A (K)	16 A (K)
Emergency operation	Automatic after manual activation	•	•	•	•
Safety Devices	EFA-TLG® door light grid in door closing line	0	o (*)	o (*)	0
	Contact edge	•	•	•	•
	Light barrier	•	•	•	•
	Approach area monitoring	0	0	0	0
	Light grid, external	0	0	0	0
Safety system including activator	EFA-SCAN® frame/bollard	0/0	0/0	0/0	0/0

Standard, o upon request, - Not available, , npd = No Performance Determined, o (\*) Standard for W > 5,000 mm,
 \* Depending on door blade, door blade guidance and door size, we reserve the right to make technical alterations!

### Technical details High-speed roll-up doors

		Pren	nium	ECO
	Size	L	S	L
Application	Interior door	•	•	•
Wind load max.*	According to DIN EN 12424 class	0 - 3	-	-
	resp. in km/h	-	38	18
Operating forces / safe closing	According to DIN EN 13241 class	fulfilled	fulfilled	fulfilled
Resistence against water ingress*	According to DIN EN 13241 class	npd	npd	npd
Air permeability*	According to DIN EN 13241 class	npd	npd	npd
Direct airborne sound insulation $R_w^*$	in dB according to DIN EN 717-1	12	12	11
Door size (in mm)	Width W max.	5,000	6,000	4,000
	Height H max.	5,500	6,000	4,000
Maximum door blade speed*	in m/s	2.6	2.0	2.0
Average speed, approx.*	Opening in m/s	2.0	1.5	1.5
	Closing in m/s	0.75	0.75	0.75
	Closing by door light grid EFA-TLG <sup>®</sup> in m/s	1.0	-	1.0
Steel design	Galvanized sheet steel frame	•	•	•
-	Stainless steel	0	_	0
	Powder coated in RAL colours	0	0	0
Door blade	Door curtain made of flexible PVC, transparent with warning stripes in different colours	•	•	•
	flexible fabric in different colours with / without vison pane	0/0	0/0	0/0
Fire class	Building Material class DIN 4102	B2	B2	B2
Weight balancing by		Spring	Spring	Weight
Designed for approx operating cyc	les per year	150,000	150,000	150,000
Collision protection	EFA-EAS®	0	0	0
Drive	Electric motor	•	•	•
Control	EFA-TRONIC®	•	•	•
	EFA-TRONIC <sup>®</sup> Light	-	_	0
	EFA-TRONIC <sup>®</sup> Professional	0	0	0
	Main switch and foil keypad	•	•	•
Lead	Electricity connection 230 V/50 Hz	•	•	•
	Electricity connection 400 V/50 Hz	0	0	0
	Circuit breaker	16 A (K)	16 A (K)	16 A (K)
Emergency operation	Automatic after manual activation	•	•	•
	Manual activation	-	-	-
Safety Devices	EFA-TLG® door light grid in door closing line	0	-	0
	Contact edge	•	•	•
	Light barrier	•	•	•
	Approach area monitoring	0	0	0
	Light grid, external	0	0	0
Safety system including activator	EFA-SCAN® frame/bollard	-/0	-/o	-/0

• Standard, o upon request, - Not available, npd = No Performance Determined, \* Depending on door blade, door blade guidance and door size, we reserve the right to make

### **R** Series

	EFA-SR	Γ°			1	
	Value	S	Т	EC	FR	EasyFit
S	L	L	S	L		
•	•	•	•	٠	•	•
0 - 2	0 - 1	-	-	-	0 - 3	npd
18	80	18	18	18	-	41
fulfilled						
0	npd	npd	npd	npd	0	npd
1	npd	npd	npd	npd	0	npd
11	11	12	12	12	12	11
6,000	3,000	4,000	4,500	4,000	4,000	4,000
7,000	3,500	4,000	5,000	4,000	5,000	4,000
2.0	1.7	2.0	2.6	2.0	2.6	1.5
1.5	1.3	1.5	2.0	1.5	1.6	1.5
0.6	0.5	0.75	1.0	0.75	0.75	-
1.0	0.8	-	-	-	1.0	1.0
•	•	•	•	-	•	•
0	0	0	0	•	0	0
0	0	0	0	-	0	0
-	0	0	0	0	•	0
0/●	0/•	0/●	0/•	0/•	0/0	0/•
B2						
Weight	Spring	Spring	Spring	Weight	Spring	-
150,000	150,000	150,000	150,000	150,000	150,000	150,000
-	-	٠	٠	-	-	-
•	•	•	•	٠	•	•
•	0	0	•	-	-	_
-	•	•	-	-	-	0
0	0	0	0	•	•	•
•	•	•	•	•	•	•
•	•	•	•	•	•	
0	0	0	0	0	0	-
16 A (K)						
•	•	•	•	•	•	_
-	-	-	-	-	-	•
0	0	-	-	-	0	٠
•	•	-	-	•	•	-
•	• prel. L	•	•	•	•	-
0	0	0	0	0	0	0
0	0	0	0	-	0	0
-/o	-/-	-/-	-/0	-/-	-/o	-/o

e technical alterations!

### Technical details High-speed folding doors

### **F** Series

			EFA-	SFT®	
		2-flg.	1-flg.	2-flg.	1-flg.
	Size	L	L	S	S
Application	Interior door	0	0	0	0
	Lock-up doors	•	•	•	•
Wind load max.*	According to DIN EN 12424 class	4	4	3	3
Operating forces / safe closing	According to DIN EN 13241 class	fulfilled	fulfilled	fulfilled	fulfilled
Resistence against water ingress*	According to DIN EN 13241 class	0	0	0	0
Air permeability*	According to DIN EN 13241 class	0	0	0	0
Direct airborne sound insulation ${\sf R}_{{\sf w}}^{*}$	in dB according to DIN EN 717-1	21	21	21	21
U value maximum*	in W/m <sup>2</sup> K according to DIN EN 13241	4.88	4.88	4.66	4.66
Door size (in mm)	Width W max.	3,750	1,750	5,250	3,000
	Height H max.	3,750	3,750	7,000	7,000
Maximum door blade speed*	in m/s	2.0	2.5	2.0	2.5
Steel design	Galvanized sheet steel frame	•	•	•	•
	Stainless steel	-	-	-	-
	Powder coated in RAL colours	0	0	0	0
Door blade	EFA-THERM® laths insulated / painted	-	-	-	-
	Vision panel single-walled / double / triple	•/0/-	•/0/-	•/0/-	•/0/-
	non transparent infill single-walled / double	0/0	0/0	0/0	0/0
	Colour according to RAL (without vison panel)	0	0	0	0
	Door blade modules made of anodized aluminium E6 / EV1	0	0	0	0
Fire class	Building Material class DIN 4102	B2	B2	B2	B2
Designed for approx operating cycles pe	r year	150,000	150,000	150,000	150,000
Drive	Electric motor	•	•	•	•
Control	EFA-TRONIC®	•	•	•	•
	EFA-TRONIC <sup>®</sup> Light	-	-	-	-
	EFA-TRONIC <sup>®</sup> Professional	0	0	0	0
	Main switch and foil keypad	•	•	•	•
Lead	Electricity connection 230 V/50 Hz	•	•	•	•
	Circuit breaker	16 A (K)	16 A (K)	16 A (K)	16 A (K)
Manual locking		0	0	0	0
Emergency operation	Manual activation	•	•	•	•
Safety Devices	Contact edge	•	•	•	•
	Light barrier	•	•	•	•
	Approach area monitoring	0	0	0	0
	Light grid, external	0	0	0	0
Safety system including activator	EFA-SCAN <sup>®</sup> bollard	0	0	0	0

## **Technical details High-speed doors deep-freeze**

### **S** Series

Size         IPLOB         ISO-LOB         ISO-LOB         ISO-LOB         Installation of cold side         Installat					EFA-SST®		
Application         Installation         Installation         Installation           Application         Interior door         -         -         -         -         -           Lock-up doors         -         -         -         -         -         -           Wind load max*         According to DNE N12242 class         5         -         -         -         -           Wind load max*         According to DNE N12241 class         3         3         3         3         3           Arp empeblity*         According to DNE N12241 class         3         3         5         5         5           Direct atirbores sound insulation R_* in dia according to DINE N12241 class         3         3         0.80         0.622         0.62         0.62         0.62         0.62         0.62         0.62         0.62         0.62         0.62         0.60			Prer	nium		TK-100	
Lock-up doorsdeep - freezedeep - freezeWind load max.*According to DIN EN 12424 class $3-4$ $2-4$ $3$ $3$ Operating forces / safe closingAccording to DIN EN 13241 classfulfilledfulfilledfulfilledReisbence against water ingress*According to DIN EN 13241 class $3$ $3$ $npd$ $npd$ Reisbence against water ingress*According to DIN EN 13241 class $3$ $3$ $5$ $5$ Direct althorne sound insultion $\mathbb{R}_*^*$ in dB according to DIN EN 172-11 $25$ $25$ $26$ $262$ Door size (in mm)Width W max. $4,500$ $6,000$ $6,000$ $6,000$ $6,000$ Maximum door blade speed*in $m/s$ $2.5$ $1.5$ $2.5$ <td></td> <td>Size</td> <td>ISO-L-60</td> <td>ISO-60</td> <td></td> <td></td> <td>Inertisation</td>		Size	ISO-L-60	ISO-60			Inertisation
Wind load max.*         According to DIN EN 12424 class         3 - 4         2 - 4         3         3         3           Operating forces / safe closing         According to DIN EN 13241 class         fuffilled	Application	Interior door	٠	•			•
Operating forces / safe closing         According to DIN EN 13241 class         fulfilled         fulfille		Lock-up doors	•	•		-	
Resistence against water ingress*         According to DIN EN 13241 class         3         3         npd         npd         npd           Air permeability*         According to DIN EN 13241 class         3         3         5         5         5           Direct airborne sound insulation R <sub>4</sub> * in dB according to DIN EN 13241         0.93         0.80         0.62         0.62         0.62           Door size (in mm)         Width W max.         4,500         6,000         4,000         4,000         4,500           Maximum door blade speed*         in m/s         2.5         1.5         2.5         2.6         2.5           Door blade guidance         Round Spiral         •         •         •         •         •           Stail fiess steel         o </td <td>Wind load max.*</td> <td></td> <td>3 - 4</td> <td>2 - 4</td> <td>3</td> <td>3</td> <td></td>	Wind load max.*		3 - 4	2 - 4	3	3	
Air permeability*         According to DIN EN 13241 class         3         3         5         5           Direct althorne sound insulation R <sub>4</sub> *         in W/m*k according to DIN EN 717-1         25         25         26         26           U value maximum*         in W/m*k according to DIN EN 13241         0.93         0.80         0.62         0.62         0.62           Door size (in mm)         Width W max.         4,550         6,000	Operating forces / safe closing	According to DIN EN 13241 class			fulfilled	fulfilled	fulfilled
Direct airborne sound insulation R <sub>n</sub> * in dB according to DIN EN 717-1         25         25         26         26         28           U value maximum*         in W/m*K according to DIN EN 13241         0.93         0.80         0.62         0.600         6.000	Resistence against water ingress*	According to DIN EN 13241 class	3	3	npd	npd	npd
U value maximum*         in W/m³K according to DIN EN 13241         0.93         0.80         0.62         0.62         0.62           Door size (in mm)         Width W max.         4,500         6,000         4,000         4,500           Maximum door blade speed*         in m/s         2,5         1,5         2,5         2,5         2,5         2,5         2,5         2,5         2,5         2,5         1,5         2,5         2,5         2,5         2,5         2,5         2,5         2,5         2,5         1,6         2,5         1,6         2,5         1,6         2,5         1,6         2,5         1,6         2,5         1,5         2,5         2,5         2,5         2,5         2,5         2,5         1,6         2,5         1,6         2,5         2,5         2,5         2,5         2,5         2,5         2,5         2,5         2,5         2,5         2,5         2,5         0,6         0 <t< td=""><td>Air permeability*</td><td>According to DIN EN 13241 class</td><td>3</td><td>3</td><td>5</td><td>5</td><td>5</td></t<>	Air permeability*	According to DIN EN 13241 class	3	3	5	5	5
Door size (in mm)         Width W max.         4,500         6,000         4,000         4,000         4,500           Maximum door blade speed*         in m/s         2.5         1.5         2.5	Direct airborne sound insulation $\mathrm{R}_{\mathrm{w}}^{*}$	in dB according to DIN EN 717-1	25	25	26	26	26
Height H max.         4,550         6,000         6,000         6,000           Maximum door blade speed*         in m/s         2.5         1.5         2.5         2.5         2.5           Door blade guidance         Round Spiral         •         •         •         •         •           Steel design         Galvamized sheet steel frame         •         •         •         •         •           Steel design         Galvamized sheet steel frame         •         •         •         •         •           Door blade         EFA-THERM® laths insulted / painted         •         •         •         •         •           Door blade         EFA-TLER® vision laths double-walled, thermally separated         •	U value maximum*	in W/m²K according to DIN EN 13241	0.93	0.80	0.62	0.62	0.62
Maximum door blade speed*       in m/s       2.5       1.5       2.5       2.5       2.5         Door blade guidance       Round Spiral       •       •       •       •       •         Steel design       Galvanized sheet steel frame Stainless steel       •       •       •       •       •       •         Door blade       EFA-THERM® laths insulated / painted walled, thermally separated       •	Door size (in mm)	Width W max.	4,500	6,000	4,000	4,000	4,500
Door blade guidanceRound Spiral•••••Steel designGalvanized sheet steel frame Stainless steeloooooDoor bladeEFA-THERM® laths insulated / painted walled, thermally separated usaled, thermally separated••••••Door bladeEFA-TLERM® laths insulated / painted walled, thermally separated (without vison panel)•••		Height H max.	4,550	6,000	6,000	6,000	6,000
Steel design       Galvanized sheet steel frame Stainless steel       •<	Maximum door blade speed*	in m/s	2.5	1.5	2.5	2.5	2.5
Stainless steelooooooPowder coated in RAL coloursooooooDor bladeEFA-THERM® laths insulated / painted••••••EFA-CLEAR® Vision laths double- walled, thermally separatedooooColour according to RAL (without vison panel)oooooooFire classBuilding Material class DIN 4102B2B2B2B2B2B2Weight balancing bySpringSpringSpringSpringSpringSpringDesigned for approxoperating cycles per year250,000220,000200,000200,000DriveElectric motorControlEFA-TRONIC®iEFA-TRONIC® LightEFA-TRONIC® Information and foil keypadoo000LeadElectricity connection 230 V/50 Hz Electricity connection 230 V/50 Hz Electricity connection 400 V/50 Hz Circuit breakeri0000Safety DevicesEFA-TLG® door light grid in door closing linei60000Safety DevicesEFA-TLG® door light grid in door closing lineii000000Safety DevicesEFA-TLG® door light grid in door closing lineioii </td <td>Door blade guidance</td> <td>Round Spiral</td> <td>•</td> <td>•</td> <td>•</td> <td>•</td> <td>٠</td>	Door blade guidance	Round Spiral	•	•	•	•	٠
Powder coated in RAL coloursoooooDoor bladeEFA-THERM® laths insulated / painted kefA-CLEAR® Vision laths double- walled, thermally separatedoooEFA-ALUX® Aluminium lathsColour according to RAL (without vision panel)oooooFire classBuilding Material class DIN 4102B2B2B2B2B2B2Weight balancing bySpringSpringSpringSpringSpringSpringDesigned for approx operating cycles per year250,000250,000200,000200,000200,000DriveElectric motor••••••ControlEFA-TRONIC®•••••••EFA-TRONIC® Professionaloo•••••••LeadElectricity connection 230 V/50 Hz Electricity connection 400 V/50 Hz Contact edge Closing line•• <td>Steel design</td> <td>Galvanized sheet steel frame</td> <td>•</td> <td>•</td> <td>•</td> <td>•</td> <td>•</td>	Steel design	Galvanized sheet steel frame	•	•	•	•	•
Door blade       EFA-THERM® laths insulated / painted       •       •       •       •       •       •         Door blade       EFA-CLEAR® Vision laths double-walled, thermally separated       o       o       -       -       o         EFA-ALUX® Aluminum laths       -       -       -       -       -       -       o         Colour according to RAL (without vison panel)       o       o       o       o       o       o       o       o         Fire class       Building Material class DIN 4102       B2       Door,0000       200,000       2		Stainless steel	0	0	0	0	0
EFA-CLEAR® Vision laths double- walled, thermally separated EFA-ALUX® Aluminium lathsoooColour according to RAL (without vison panel)ooooooFire classBuilding Material class DIN 4102B2B2B2B2B2B2Weight balancing bySpringSpringSpringSpringSpringSpringSpringDesigned for approx operating cycles per year250,000250,000200,000200,000200,000DriveElectric motorControlEFA-TRONIC®eEFA-TRONIC® LightEFA-TRONIC® Professionaloo00000LeadElectricity connection 230 V/50 HzooLeadElectricity connection 400 V/50 Hzoo0oooManual lockingSafety DevicesEFA-TL@ door light grid in door closing line-00ooooSafety DevicesEFA-TL@ door light grid in door closing lineoooContact edge Light barrierooooooooooManual lockingEFA-TL@ door light grid in door closing lineoo<		Powder coated in RAL colours	0	0	0	0	0
walled, thermally separated000EFA-ALUX® Aluminium lathsColour according to RAL (without vison panel)0000000Fire classBuilding Material class DIN 4102B2B2B2B2B2B2B2Weight balancing bySpring IntervalSpringSpringSpringSpringSpringSpringDesigned for approx operating cycles per year250,000250,000200,000200,000200,000DriveElectric motor•••••ControlEFA-TRONIC®•••••EFA-TRONIC® LightEFA-TRONIC® Professionalooo•••Main switch and foll keypad••Electricity connection 230 V/50 Hz Electricity connection 400 V/50 Hz Circuit breaker•••••Manual locking•••••••••Safety DevicesEFA-TLG® door light grid in door Closing line•••••••Safety DevicesEFA-TLG® door light grid in door Light barrierooooooooSafety DevicesEFA-TLG® door light grid in door Light barrierooo<	Door blade	EFA-THERM® laths insulated / painted	•	•	•	•	•
Colour according to RAL (without vision panel)oooooFire classBuilding Material class DIN 4102B2B2B2B2B2B2B2Weight balancing bySpringSpringSpringSpringSpringSpringSpringSpringDesigned for approx operating cycles per year250,000250,000200,000200,000200,000DriveElectric motor•••••ControlEFA-TRONIC®•••••EFA-TRONIC® LightEFA-TRONIC® Professionaloo•••Main switch and foil keypad•••••LeadElectricity connection 230 V/50 HzoooooCircuit breaker16 A(K)16 A(K)25 A(K)25 A(K)16 A(K)Manual locking••••••Safety DevicesEFA-TLG® door light grid in door closing line•••••Contact edgeooo•••••Light barrieroooooooLight barrierooo••••Approach area monitoringooooooOooooooooLight barriero <td></td> <td></td> <td>0</td> <td>0</td> <td>-</td> <td>-</td> <td>0</td>			0	0	-	-	0
(without vison panel)00000000Fire classBuilding Material class DIN 4102B2B2B2B2B2B2Weight balancing bySpringSpringSpringSpringSpringSpringDesigned for approx operating cycles per year250,000250,000200,000200,000200,000DriveElectric motor••••••ControlEFA-TRONIC® LightEFA-TRONIC® LightEFA-TRONIC® professionaloo••••Main switch and foil keypad••••••LeadElectricity connection 230 V/50 Hzoo••••Manual locking••••••••Safety DevicesEFA-TLG® door light grid in door closing line••••••Safety DevicesEFA-TLG® door light grid in door closing line•••••••Light barrier Approach area monitoringoooo•••••Ooooooooooo••LeadElectricity connection 400 V/50 Hz Contact edge Light barrier•••••••		EFA-ALUX® Aluminium laths	-	_	-	-	-
Weight balancing by     Spring       Designed for approx operating cycles per year     250,000     250,000     200,000     200,000     200,000       Drive     Electric motor     •     •     •     •     •       Control     EFA-TRONIC®     •     •     •     •     •       EFA-TRONIC® Light     -     -     -     -     -       EFA-TRONIC® Professional     o     o     •     •     •       Main switch and foil keypad     •     •     •     •     •       Lead     Electricity connection 230 V/50 Hz     •     •     •     •       Circuit breaker     16 A (K)     16 A (K)     25 A (K)     25 A (K)     16 A (K)       Manual locking     •     •     •     •     •     •       Ereorgency operation     Automatic after manual activation     •     •     •     •       Safety Devices     EFA-TLG® door light grid in door     •     •     •     •       Contact edge     o     o     o     •     •     •       Light barrier     o     o     o     o			0	0	0	0	0
Designed for approx operating cycles per year       250,000       250,000       200,000       200,000       200,000         Drive       Electric motor       •       •       •       •       •       •         Control       EFA-TRONIC®       •       •       •       •       •       •       •       •         Control       EFA-TRONIC® Light       -       -       -       -       -       -       -       •	Fire class	Building Material class DIN 4102	B2	B2	B2	B2	B2
DriveElectric motor••••ControlEFA-TRONIC®•••EFA-TRONIC® LightEFA-TRONIC® Professionaloo•••Main switch and foil keypad•••••LeadElectricity connection 230 V/50 Hz•••••Electricity connection 400 V/50 Hzoo••••Circuit breaker16 A (K)16 A (K)25 A (K)25 A (K)16 A (K)Manual locking••••••Safety DevicesEFA-TLG® door light grid in door closing line•••••Contact edgeooo•••••Approach area monitoringoooo•••	Weight balancing by		Spring	Spring	Spring	Spring	Spring
DriveElectric motor••••ControlEFA-TRONIC®•••EFA-TRONIC® LightEFA-TRONIC® Professionaloo•••Main switch and foil keypad•••••LeadElectricity connection 230 V/50 Hz•••••Electricity connection 400 V/50 Hzoo••••Circuit breaker16 A (K)16 A (K)25 A (K)25 A (K)16 A (K)Manual locking••••••Safety DevicesEFA-TLG® door light grid in door closing line•••••Contact edgeooo•••••Approach area monitoringoooo•••	Designed for approx operating cyc	cles per year	250,000	250,000	200,000	200,000	200,000
EFA-TRONIC® LightEFA-TRONIC® Professionalooo•oMain switch and foil keypad•••••LeadElectricity connection 230 V/50 Hz•••Electricity connection 400 V/50 Hzoo••ooCircuit breaker16 A (K)16 A (K)25 A (K)25 A (K)16 A (K)Manual locking•••oooEmergency operationAutomatic after manual activation•••••Safety DevicesEFA-TLG® door light grid in door closing line••••••Contact edgeooo••oooLight barrieroooo••ooApproach area monitoringooooooo			•	•	•	•	•
EFA-TRONIC® Professional Main switch and foil keypadooooLeadElectricity connection 230 V/50 Hz Electricity connection 400 V/50 Hz Circuit breaker•••Manual locking•• <td< td=""><td>Control</td><td>EFA-TRONIC®</td><td>٠</td><td>•</td><td>_</td><td>-</td><td>•</td></td<>	Control	EFA-TRONIC®	٠	•	_	-	•
EFA-TRONIC® Professional Main switch and foil keypadooooLeadElectricity connection 230 V/50 Hz Electricity connection 400 V/50 Hz Circuit breaker•••Manual locking•• <td< td=""><td></td><td>EFA-TRONIC<sup>®</sup> Light</td><td>-</td><td>_</td><td>_</td><td>-</td><td>-</td></td<>		EFA-TRONIC <sup>®</sup> Light	-	_	_	-	-
Main switch and foil keypad••••LeadElectricity connection 230 V/50 Hz Electricity connection 400 V/50 Hz Circuit breaker•••Manual locking•00••0000Manual locking••••000		°	0	0	•	•	0
LeadElectricity connection 230 V/50 Hz Electricity connection 400 V/50 Hz Circuit breaker•••Manual locking•• </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>•</td> <td></td>						•	
Electricity connection 400 V/50 Hz Circuit breakerooooManual locking••••0016 A (K)Manual locking••••oo00Emergency operationAutomatic after manual activation•••<	l ead			•		_	
Circuit breaker16 A (K)16 A (K)25 A (K)25 A (K)16 A (K)Manual locking•••oooEmergency operationAutomatic after manual activation••••••Safety DevicesEFA-TLG® door light grid in door closing line•••••••Contact edgeooo•••••••Light barrieroooo••ooo•Approach area monitoringooooo••ooo		·		0		•	0
Manual locking     •     •     o     o     o       Emergency operation     Automatic after manual activation     •     •     •     •       Safety Devices     EFA-TLG® door light grid in door closing line     •     •     •     •     •       Contact edge     o     o     o     •     •     •     •       Light barrier     o     o     o     •     •     •       Approach area monitoring     o     o     o     -     o					25 A (K)	-	
Emergency operationAutomatic after manual activation••••Safety DevicesEFA-TLG® door light grid in door closing line•••-•Contact edgeoo••ooLight barrierooo•ooApproach area monitoringoooooo	Manual locking						
Safety Devices       EFA-TLG® door light grid in door closing line       •       •       •       -       •         Contact edge       o       o       •       •       o		Automatic after manual activation					
Contact edgeoo•oLight barrieroooooApproach area monitoringooooo	5 7 1	EFA-TLG® door light grid in door			•	-	
Light barrierooooApproach area monitoringoooo		-	0	0	•	•	0
Approach area monitoring o o o - o		-			0	•	
		-				_	
						_	
Safety system including activator EFA-SCAN® frame/bollard o/o o/o – – – –	Safety system including activator					_	

Standard, o upon request, – Not available, npd = No Performance Determined,
 \* Depending on door blade, door blade guidance and door size, we reserve the right to make technical alterations!

# **Technical details High-speed doors machine protection**

#### **MS Series**

				E	FA-SRT® M	S		EFA-SST <sup>®</sup> MS
		Performance			A	A	USD	
	Size	L	L	s	L	s		
Application	According to DIN EN 12424 class	•	•	•	•	•	•	•
Wind load max.*	According to DIN EN 13241 class	0	0	0	0	0	_	4
Operating forces / safe closing	According to DIN EN 13241 class	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled
Air permeability*	in dB according to DIN EN 717-1	0	0	0	0	0	-	0
Direct airborne sound insulation ${\sf R}_{\sf w}^{\ \ast}$	in dB nach DIN EN 717-1	12	12	12	12	12	12	23
Door size (in mm)	Width W max.	3,500	3,000	5,000	3,000	6,000	6,000	3,000
	Height H max.	3,500	3,000	3,500	3,000	3,500	4,500	3,000
Maximum door blade speed*	in m/s	2.0	1.8	1.8	1.8	1.8	1.8	2.7
Door blade guidance	Round Spiral	-	-	-	_	-	-	•
Steel design	Galvanized sheet steel frame	•	•	•	•	•	•	•
	Powder coated in RAL colours	0	0	0	0	0	0	0
Door blade	EFA-CLEAR® Vision laths single-walled	-	-	-	-	-	-	0
	EFA-VENT® Ventilation laths	-	-	-	-	-	-	0
	EFA-ALUX® Aluminium laths	-	-	-	-	-	-	•
	Colour according to RAL (without vison panel)	-	-	-	-	-	-	0
	Door curtain made of flexible PVC, transparent with warning stripes in different colours	•	•	•	•	•	•	-
	flexible fabric in different colours with / without vison panel	0/0	0/0	0/0	0/0	0/0	0/0	-
Fire class	Building Material class DIN 4102	B2	B2	B2	B2	B2	B2	B2
Weight balancing by		-	-	-	_	-	Weight	Spring
Designed for approx operating cycl	es per year	1,000,000	250,000	250,000	250,000	250,000	250,000	250,000
Drive	Electric motor	•	•	•	•	•	•	•
Control	EFA-TRONIC®	0	0	0	0	0	0	0
	EFA-TRONIC <sup>®</sup> Light	-	-	-	-	-	-	-
	EFA-TRONIC <sup>®</sup> Professional	•	•	•	•	•	•	•
	Main switch and foil keypad	0/●	0/●	0/●	0/●	0/●	0/•	0/●
Lead	Electricity connection 230 V/50 Hz	0	0	0	0	0	0	0
	Electricity connection 400 V/50 Hz	•	•	•	•	•	•	•
	Circuit breaker	16 A (K)	16 A (K)	16 A (K)	16 A (K)	16 A (K)	16 A (K)	16 A (K)
Emergency operation	Automatic after manual activation	-	-	-	-	-	-	0
	Manual activation	•	•	•	•	•	-	-
Safety Devices	EFA-TLG® door light grid in door closing line	•	-	-	-	-	-	-
	Contact edge	0	•	•	•	•	•	•
	Light barrier	0	•	•	•	•	•	•
	Approach area monitoring	0	0	0	0	0	0	0
	Light grid, external	o HSO	o HSO	o HSO	o HSO	o HSO	0	-
Safety system including activator	EFA-SCAN® frame/bollard	-/0	-/o	-/o	-/o	-/o	-/-	-/-

## Technical details High-speed doors clean room

### **CR Series**

		EF	A-SRT <sup>®</sup> CR		EFA-STT <sup>®</sup> CR	EFA-HVS® CR
		Premium	Efficient	С		
Application	Interior door	•	•	•	•	•
Operating forces / safe closing	According to DIN EN 13241 class	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled
Clean room class	ISO 14644-1	5	6	6/7	6	-
Door size (in mm)	Width W max.	2,500	3,000	3,500	4,000	1,300
	Height H max.	3,000	3,500	3,500	5,000	1,500
Maximum door blade speed*	in m/s				3,0	
Door blade guidance	Round Spiral	-	-	-	•	-
Steel design	Galvanized sheet steel frame	-	-	-	•	-
	Stainless steel	•	0	•	0	•
	Powder coated in RAL colours	0	•	0	0	-
Door blade	EFA-CLEAR® Vision laths single-walled	-	-	-	•	-
	non transparent infill single- walled / doublewalled	-	-	-	0	_
	Colour according to RAL (without vison panel)	-	-	-	0	-
	flexible fabric in different colours with / without vison panel	0/●	0/•	0/•	-	-
Fire class	Building Material class DIN 4102	B2	B2	B2	B2	B2
Weight balancing by		Spring		Spring	Spring	Weight
Designed for approx operating cy	cles per year	200,000	100,000	200,000	200,000	150,000
Drive	Electric motor	•	•	•	•	•
Control	EFA-TRONIC®	<ul> <li>integrated</li> </ul>	•	•	•	•
	EFA-TRONIC <sup>®</sup> Professional	-	-	-	0	-
	Main switch and foil keypad	•	•	•	•	•
Lead	Electricity connection 230 V/50 Hz	•	٠	•	•	•
	Circuit breaker	16 A (K)	16 A (K)	16 A (K)	16 A (K)	16 A (K)
Manual locking		-	_	-	0	-
Emergency operation	Automatic after manual activation	•	-	•	0	-
	Manual activation	-	•	-	-	•
Safety Devices	EFA-TLG® door light grid in door closing line	0	-	•	0	-
	Contact edge	•	•	-	•	•
	Light barrier	•	•	-	•	•
	Approach area monitoring	0	0	0	0	0
	Light grid, external	0	0	0	0	0
Safety system including activator	EFA-SCAN® frame/bollard	-/o	-/0	-/o	-/o	-/0

# Technical details High-speed doors burglary protection

#### EFAPROTECT Series

		EFA-SS	T®
		Secure (RC3+RC4)	Efficient
	Size	L	L
Application	Interior door	•	•
	Lock-up doors	•	•
Wind load max.*	According to DIN EN 12424 class	4	2 - 4
Operating forces / safe closing	According to DIN EN 13241 class	fulfilled	fulfilled
Resistence against water ingress*	According to DIN EN 13241 class	-	2
Air permeability*	According to DIN EN 13241 class	-	0
Direct airborne sound insulation R <sub>w</sub> *	in dB according to DIN EN 717-1	25	20
U value maximum*	in W/m <sup>2</sup> K according to DIN EN 13241	5.8	1.7
Door size (in mm)	Width W max.	4,000	4,000
	Height H max.	5,000	5,130
Door blade guidance	Round Spiral	•	•
Steel design	Galvanized sheet steel frame	•	•
	Powder coated in RAL colours	0	0
Door blade	EFA-THERM® laths insulated/painted	-	•
	EFA-THERM® laths with double-walled viewing windows	-	0
	EFA-CLEAR® Vision laths single-walled	_	0
	EFA-VENT® Ventilation laths	_	0
	EFA-ALUX <sup>®</sup> Aluminium laths	•	-
Fire class	Building Material class DIN 4102	B2	B2
Weight balancing by		Spring	Spring
Designed for approx operating cycles	per year	250,000	150,000
Drive	Electric motor	•	•
Control	EFA-TRONIC®	-	•
	EFA-TRONIC <sup>®</sup> Professional	•	0
	Main switch and foil keypad	•	•
Lead	Electricity connection 230 V/50 Hz	•	_
	Electricity connection 400 V/50 Hz	0	•
	Circuit breaker	16 A (K)	16 A (K)
Emergency operation	Automatic after manual activation	•	_
5 7 1	Manual activation	_	•
Safety Devices	EFA-TLG® door light grid in door closing line	•	_
-	Contact edge	_	•
	Light barrier	_	•
	Approach area monitoring	0	0
	Light grid, external	0	0
Safety system including activator	EFA-SCAN <sup>®</sup> frame/bollard	-/0	0/0

# Technical details High-speed doors explosion protection

### **EX Series**

		EFA-SST*	EFA-SRT®
		EX	EX
Application	Interior door	•	•
присатон	Lock-up doors	•	_
ATEX Directive	According to RL 2014/34/EU	Zone 1 & 2	Zone 1 & 2
Wind load max.*	According to DIN EN 12424 class	2 - 4	
	resp. in km/h		43
Operating forces / safe closing	According to DIN EN 13241 class	fulfilled	fulfilled
Resistence against water ingress*	According to DIN EN 13241 class	0	-
Air permeability*	According to DIN EN 13241 class	2	-
Direct airborne sound insulation R <sub>w</sub> *	in dB according to DIN EN 717-1	23	12
U value maximum*	in W/m²K according to DIN EN 13241	5.8	-
Door size (in mm)	Width W max.	4,000	4,000
	Height H max.	5,000	4,000
Door blade guidance	Round Spiral	•	-
-	Oval Spiral	•	-
Steel design	Galvanized sheet steel frame	•	•
	Stainless steel	0	0
	Powder coated in RAL colours	0	0
Door blade	EFA-CLEAR <sup>®</sup> Vision laths single-walled	•	-
	EFA-VENT <sup>®</sup> Ventilation laths	0	-
	EFA-ALUX® Aluminium laths	•	-
	Colour according to RAL (without vison panel)	0	-
	flexible fabric in different colours with/ without vison panel	-	black without vision panel
Fire class	Building Material class DIN 4102	B2	B2
Weight balancing by		Spring	Spring
Designed for approx operating cycles per year		200,000	150,000
Drive	Electric motor	•	•
Control	EFA-TRONIC <sup>®</sup> Professional	•	•
	Main switch and foil keypad	•	•
Lead	Electricity connection 230 V/50 Hz	•	•
	Circuit breaker	16 A (K)	16 A (K)
Manual locking		0	-
Emergency operation	Automatic after manual activation	•	•
Safety Devices	Contact edge	•	•
	Light barrier	•	•

## **Technical details High-speed doors intralogistics**

### **MTL Series**

		EFA-SRT <sup>®</sup> MTL	EFA-SRT <sup>®</sup> MHT Compact
Application	Interior door	٠	•
Wind load max.*	According to DIN EN 12424 class	0	-
Operating forces / safe closing	According to DIN EN 13241 class	fulfilled	-
Air permeability*	According to DIN EN 13241 class	0	-
Direct airborne sound insulation $R_w^*$	in dB according to DIN EN 717-1	12	12
Door size (in mm)	Width W max.	3,000	1,600
	Height H max.	3,000	1,600
Door blade guidance	Round Spiral	-	-
Steel design	Galvanized sheet steel frame	٠	•
	Powder coated in RAL colours	0	0
Door blade	EFA-CLEAR® Vision laths single-walled	_	-
	EFA-VENT® Ventilation laths	-	-
	EFA-ALUX <sup>®</sup> Aluminium laths	-	-
	Colour according to RAL (without vison panel)	-	-
	Door curtain made of flexible PVC, transparent with warning stripes in different colours	٠	_
	flexible fabric in different colours with/ without vison panel	0/0	-/•
Fire class	Building Material class DIN 4102	B2	B2
Weight balancing by		-	-
Designed for approx operating cycles per year		250,000	500,000
Drive	Electric motor	٠	•
Control	EFA-TRONIC®	0	-
	EFA-TRONIC <sup>®</sup> Light	•	•
	EFA-TRONIC <sup>®</sup> Professional	-	-
	Main switch and foil keypad	-/•	-
Lead	Electricity connection 230 V/50 Hz	٠	•
	Electricity connection 400 V/50 Hz	0	-
	Circuit breaker	16 A (K)	16 A (K)
Emergency operation	Automatic after manual activation	_	-
	Manual activation	o (*)	-
Safety Devices	EFA-TLG® door light grid in door closing line	0	-
	Contact edge	•	-
	Light barrier	•	-
	Approach area monitoring	0	-
	Light grid, external	0	0
Safety system including activator	EFA-SCAN® frame/bollard	-/0	-/o

Standard, ○ upon request, - Not available, ○(\*) Depending on the type of drive,
 \* Depending on door blade, door blade guidance and door size, we reserve the right to make technical alterations!

EFAFLEX Tor- und Sicherheitssysteme GmbH & Co. KG Fliederstraße 14 84079 Bruckberg / Germany Telephone +49 8765 82-0 www.efaflex.com info@efaflex.com

EFAFLEX® is a registered and legally protected trademark. Subject to technical changes. Some diagrams depict special features. Overall design: www.creativconcept.de 05 | 2024

