

The World of Doors



EFAFLEX 
safe high-speed doors




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Head start included:

More than 30 years of success

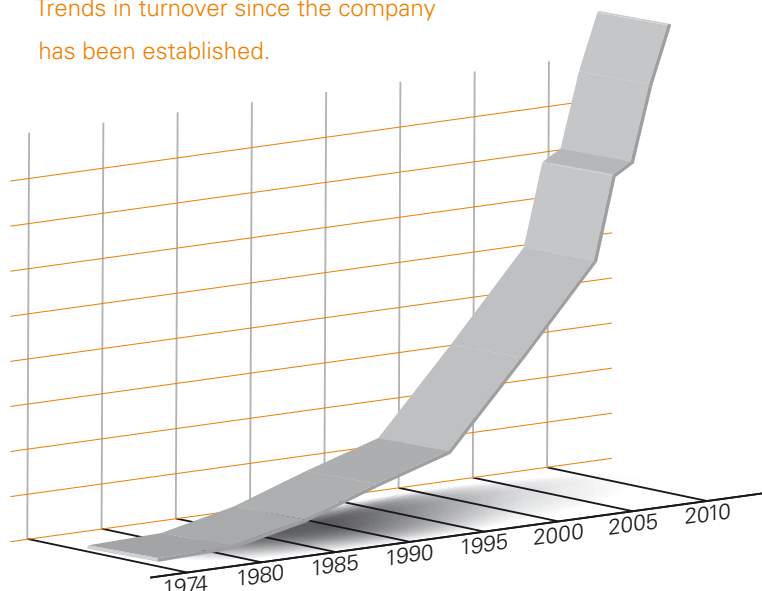
When established in 1974, EFAFLEX was the first company in the world to deal exclusively in High-speed doors. And that was quite deliberate. For this vision gave us the advantage right from the word go.

In the beginning was the technological redefinition of the power-driven door by EFAFLEX – which revolutionized all conventional designs. Since then, one speaks of High-speed doors.

Today, EFAFLEX is the pioneering manufacturer of High-speed doors and the undisputed leader in this technology. The company employs 800 employees worldwide. EFAFLEX is based in Bruckberg, Bavaria, just twenty minutes away from Munich airport. From here, we serve the distribution network that has reached over all five continents since 1994.

EFAFLEX has been offering innovative and creative engineering technology from Germany for more than 30 years.

Trends in turnover since the company has been established.



Visions become true

- 1974 EFAFLEX established
- 1980 High-speed folding door "ES"
- 1984 "AS" folding door with the patented Cardan joint
- 1989 High-speed roll-up door "SRT"; EFAFLEX has 100 employees
- 1992 World innovation: the High-speed spiral door "SST", with the patented spiral
- 1994 The distribution network now stretches across all five continents
- 1995 EFAFLEX establishes a second production site
- 1998 World innovative safety system: "TLG" door light-line grid; EFAFLEX employs 250 people and continues to expand
- 1999 World innovation: the completely transparent EFAFLEX High-speed door "STT"
- 2002 EFAFLEX presents the world's fastest door, the "STR"; Sales Management of the company passed to the second generation
- 2004 EFAFLEX employs 500 people; the completely new safety system "ACS" and the High-speed roll-up door "SRT-CR" for clean rooms are other world innovations
- 2007 Premiere for unique energy saving: the new, innovative generation of High-speed spiral doors EFA-SST® with thermally insulated laths EFA-THERM® revolutionizes the market
- 2008 A new operations building with training centre and exhibition room and a new production hall; EFAFLEX employs 800 people; Engineering Management of the company passed to the second generation
- 2009 Introduction of the EFA-SCAN®: worldwide first laser scanner for door systems

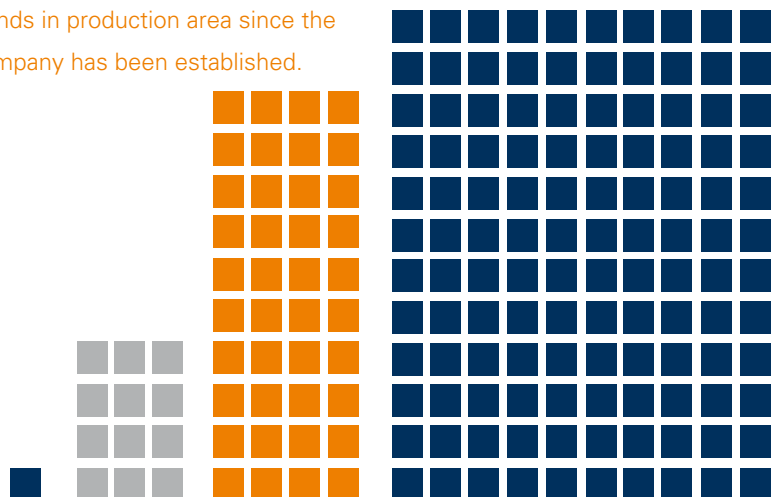
No progress without innovation

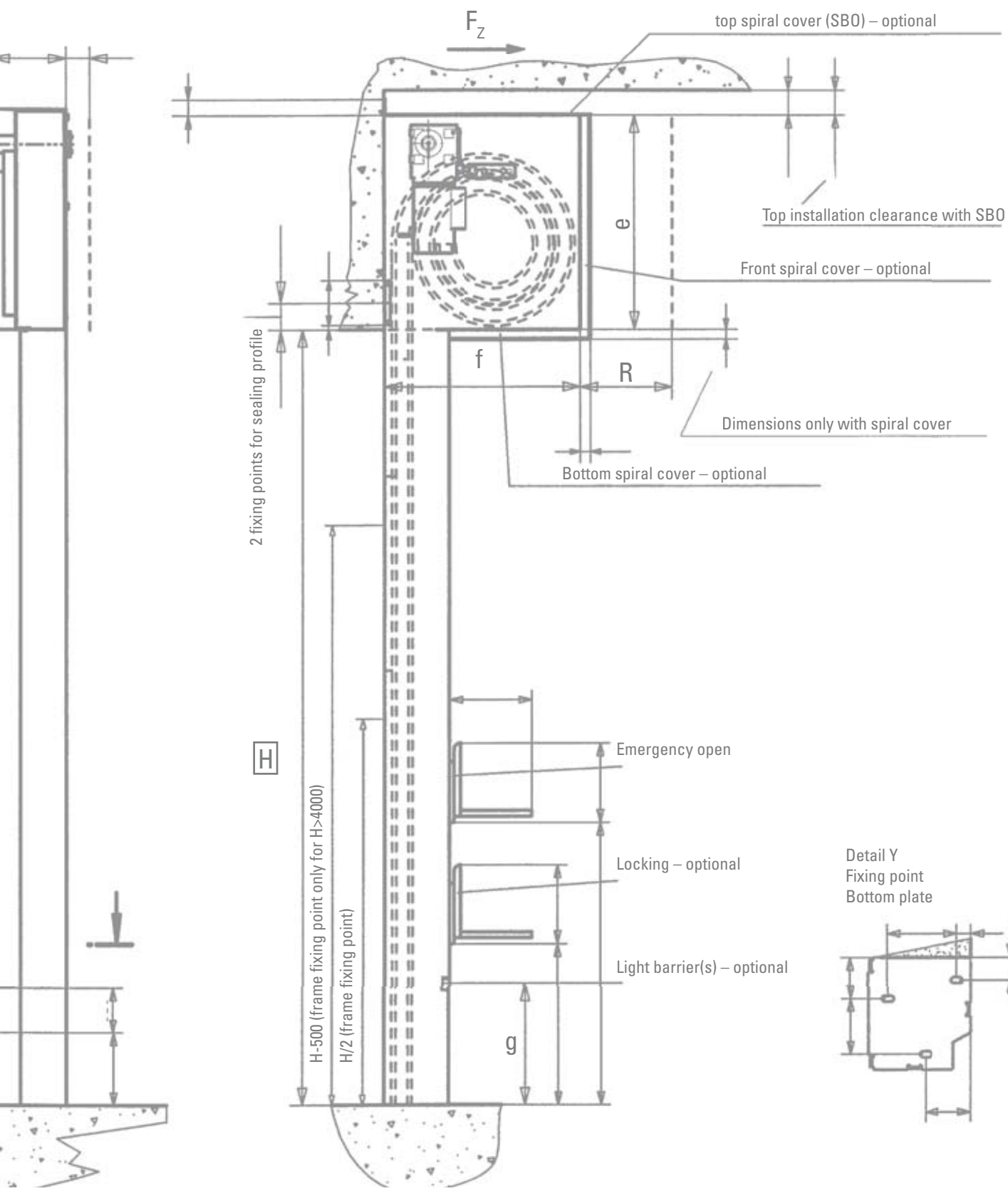
Opting for an EFAFLEX High-speed door means opting for globally leading technology and benefiting exclusively from our technological advantage. In-house research and development is an important part of the EFAFLEX company philosophy. That way we can be sure of constant progress. It is not easy to be the world's technological leader, yet we still continue to develop revolutionary door systems for your successful future.

In research and development, we set technological standards that everyone else follows.

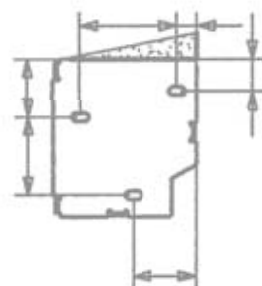
With the invention of the spiral door, EFAFLEX set a true milestone in door technology. The construction principal is internationally patented and may not be copied by any other manufacturer. The spiral allows extremely fast door operation. Another advantage to this innovative construction: the door blade runs up free of contact, resulting in virtually no wear.

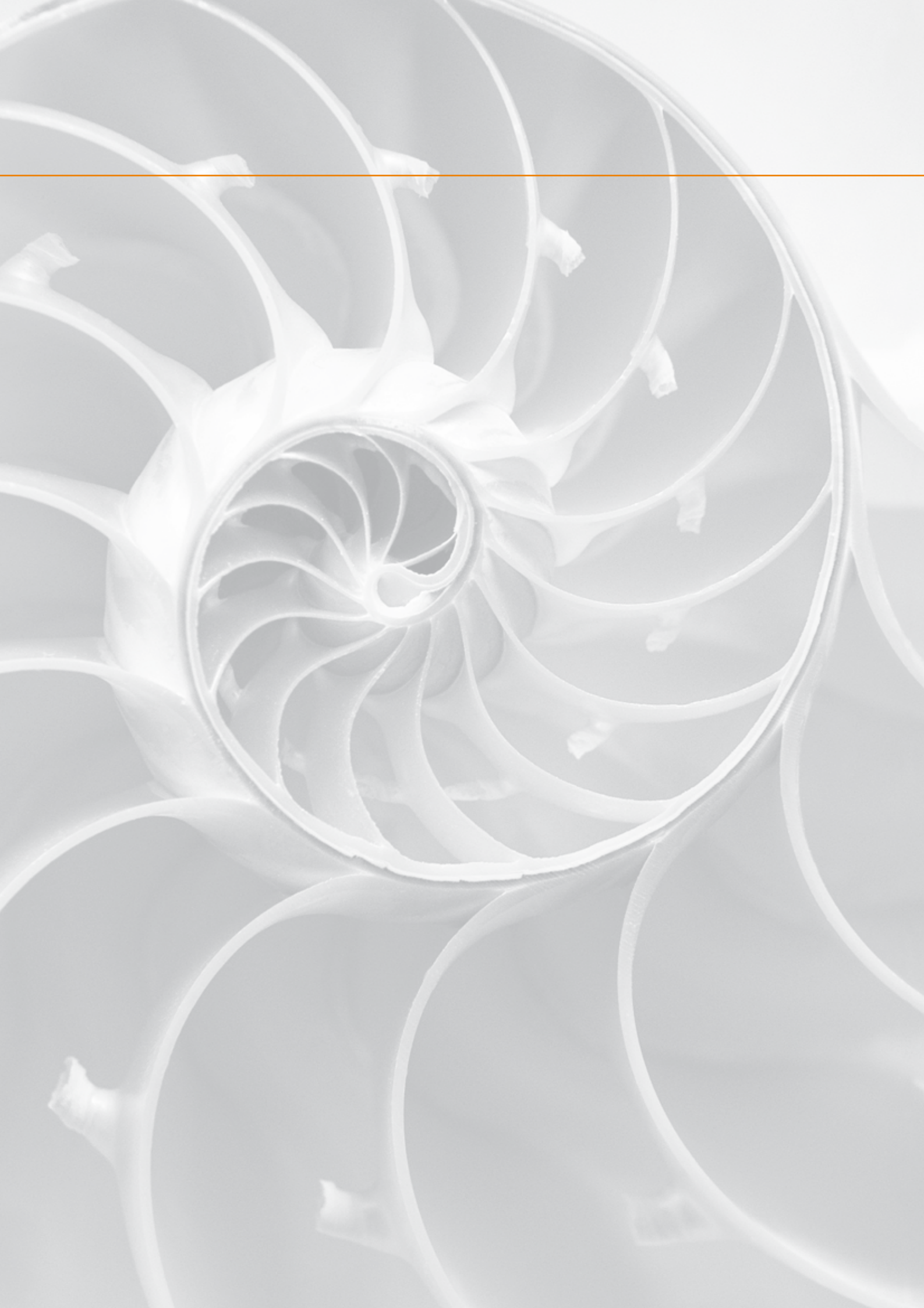
Trends in production area since the company has been established.



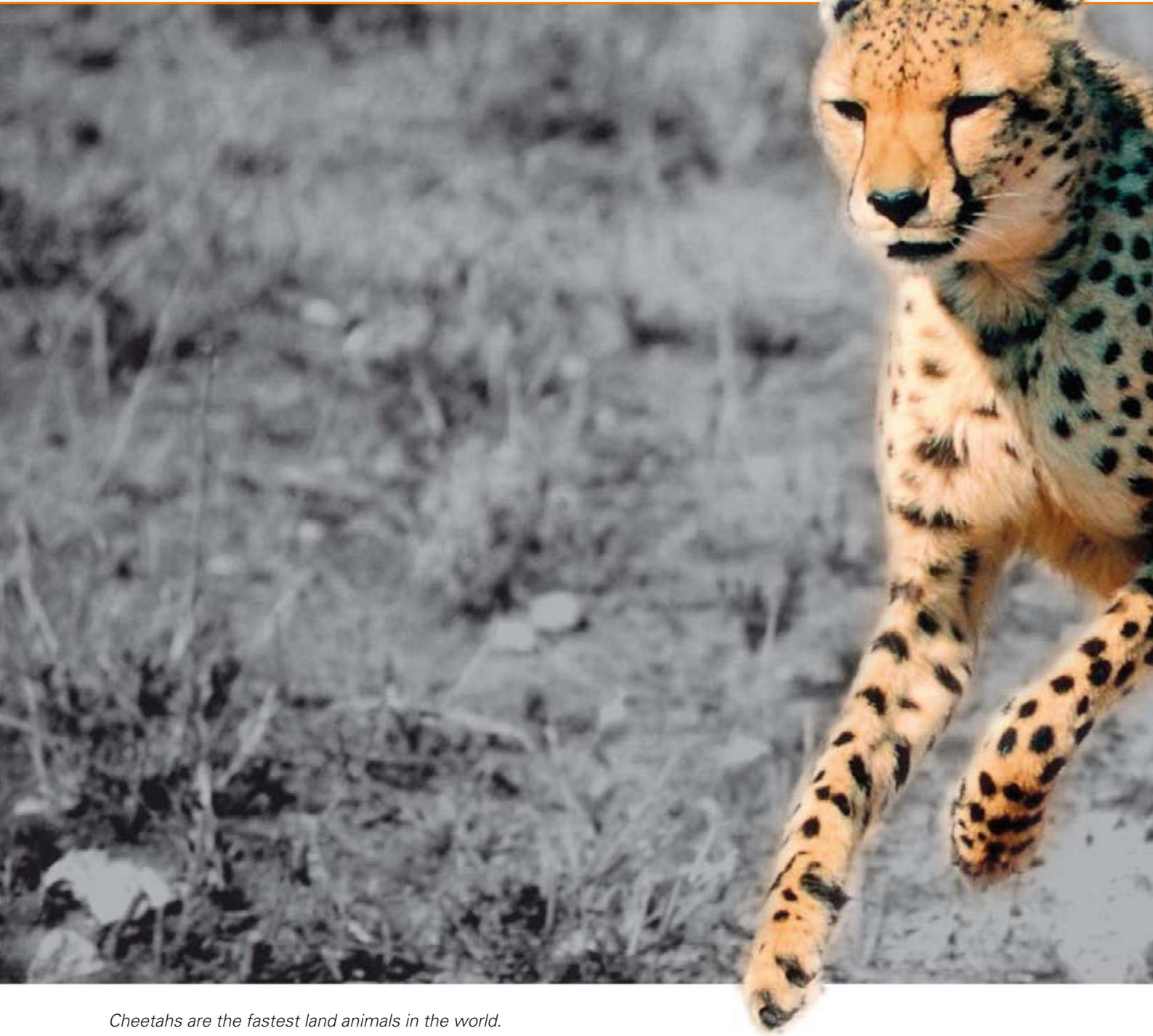


Detail Y
 Fixing point
 Bottom plate





Speed fascinates



Cheetahs are the fastest land animals in the world. So it is only natural that a cheetah makes the perfect symbol for our logo. After all, EFAFLEX High-speed doors are the fastest of their kind.

When it comes to speed, our performance is unrivalled. Make use of that advantage! For speed is often the decisive advantage.

In nature and technology –
man is captivated by speed.



Speed increases your efficiency. Working fast means working economically: greater performance in shorter time. Optimize your processes and benefit from the fastest doors, made by EFAFLEX.

Some years ago, EFAFLEX set the world speed champion into the race: In 2002, full of pride, we presented to the world the fastest door ever built: the EFA-STR®.

The patented round spiral, the light-weight yet extremely stable door blade and a powerful drive make it the unbeaten champion in speed to this day.



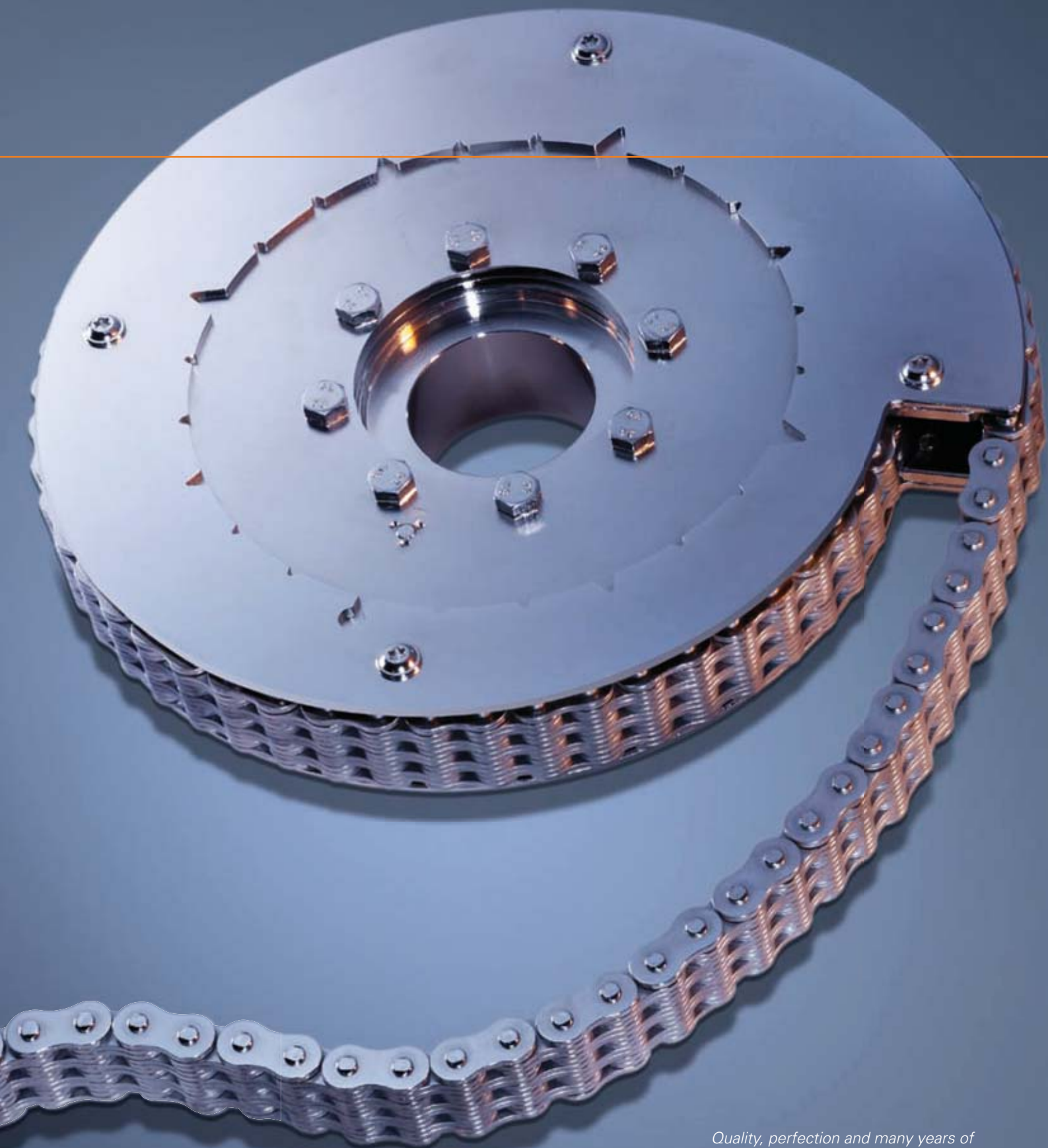
A sense of comfort: our safety systems

A sense of safety is an especially comforting feeling. Safety means: risk is managed. With an EFAFLEX High-speed door, you are opting for the highest safety standard on the market – for personal, vehicle, cargo safety – and of course safety for the door itself.

EFAFLEX High-speed doors not only offer countless possible combinations with “active” safety systems, such as the unique EFA-TLG® infrared light-line grid. They are also structurally designed for many years of operation, down to the tiniest detail. The quality difference that provides you with this safety can be revealed by taking a closer look at the hidden interior parts of each and every door ...

One of the prime examples of safety and quality “MADE IN GERMANY” is the mechanical locking on the EFA-STR® High-speed spiral door. A robust leaf chain connects the door blade to a spring assembly, preventing the door blade from falling abruptly in the event of a fault. The springs anchored into the ground, combined with the covered leaf chain, support the drive as it opens the door. That also means the door can still be reliably opened in the event of a power failure.





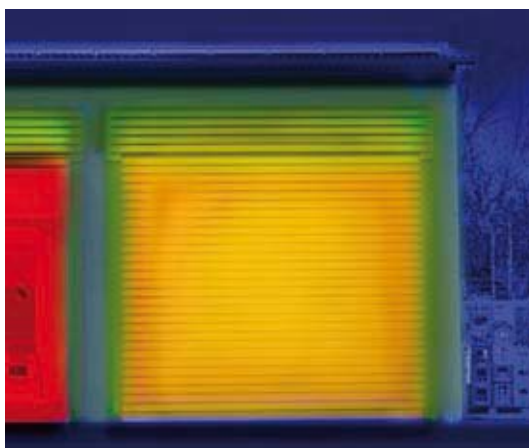
Quality, perfection and many years of experience: You remain free to choose the most appropriate safety levels. After all, you must be able to rely completely on your EFAFLEX High-speed door.

Cost effectiveness: through quality engineering

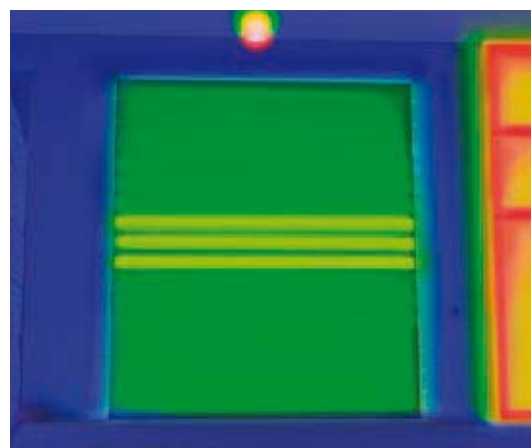
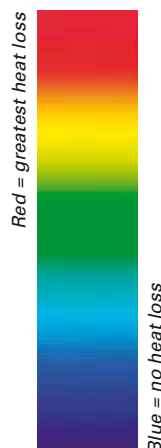
Sometimes it is right to make no compromise:
in quality, for example.

The unsurpassed quality of EFAFLEX High-speed doors pays dividends. A high degree of precision in manufacture, robust modern materials, technologies that almost completely eliminate wear – every High-speed door from EFAFLEX is an investment that pays off every day.

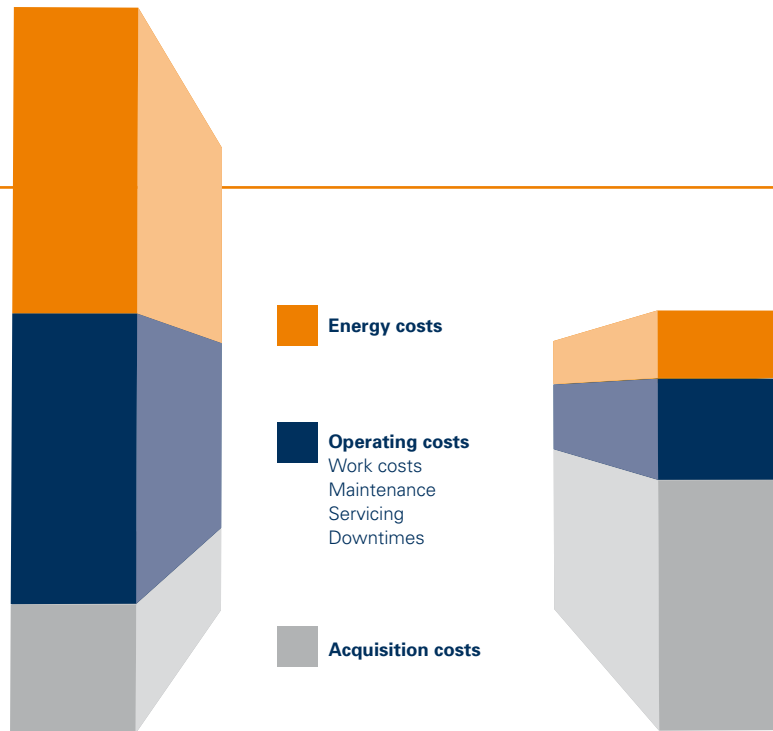
One of the most important factors for economy nowadays is energy! EFAFLEX has done something to counter the rising prices and an uncertain supply of raw materials: the fast opening and closing speeds of our doors ensure that only minimal energy is lost to the outside, or between two rooms. With EFAFLEX High-speed doors, you effectively reduce your energy costs!



This thermal image of a conventional roller door clearly shows the loss of heat to the outside.



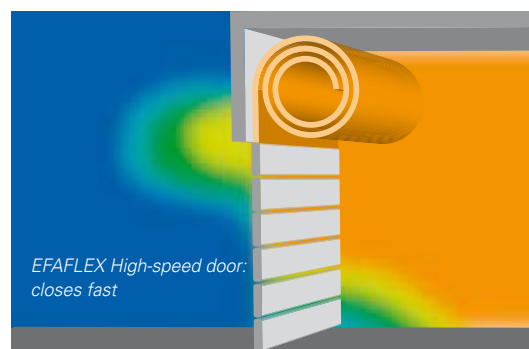
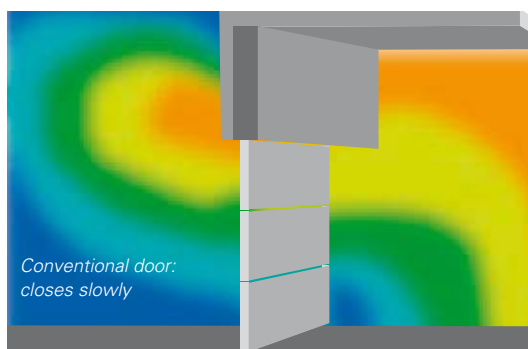
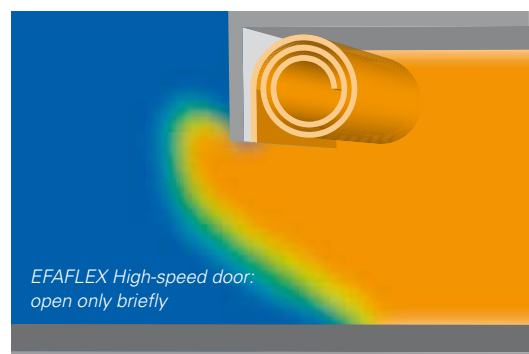
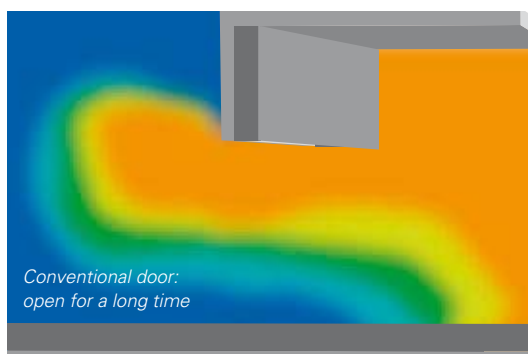
With EFA-SST®, we are the first manufacturer to provide you with thermally insulated EFA-THERM® laths. These considerably improve the thermal insulation, thus lowering your energy costs.



*Higher costs in the long-run:
conventional roller door*

*Long-term savings:
EFAFLEX-High-speed door*

Compared to conventional roller doors, EFAFLEX High-speed doors are an investment that soon pays for itself. The lower energy costs are also a benefit to the environment: for every heating period, you save up to 4600 litres of heating oil – and relief the ecosystem by up to 13 tonnes CO₂.



During the long opening cycle of a conventional door, a large amount of energy is wasted.

The extremely fast opening and closing of an EFAFLEX High-speed door, by contrast, prevents draughts and loss of heat or cold between the inside and outside.



Our Doors. Our World. Our Future.

EFAFLEX High-speed doors continue to meet demanding requirements all over the world. The company has developed into a global player with a world wide network. Today there are EFAFLEX partners ready to assist you in more than 50 countries and on all 5 continents.

Global Player EFAFLEX –

Doors for a better world

As a global player, we are well aware of the extreme controversy on the subject of energy. Resources are becoming scarcer, environmental pollution is increasing and energy costs are rising – that drives us on to construct the most efficient doors in the world for you.

Our dedication begins already with environmentally sound production and packaging. We even consider the ecological effects of the EFAFLEX High-speed doors themselves. All laths, for example, are environmentally friendly and recyclable. Optimized transport routes are just another example of how EFAFLEX fulfils its duty.

The efficient heat insulation and high opening/closing speeds of EFAFLEX High-speed doors not only reduce your energy costs, but also help protect the environment and lead to responsible use of valuable resources.

That way, we create a better future for future generations!



EFAFLEX is part of the initiative "energy efficiency – made in Germany" under the direction of the Federal Ministry of Economics and Technology.

High-speed doors in the world's highest class



S Series

High-speed spiral doors

High-speed spiral doors are the worldwide unique product of creative and innovative technology. All doors in this series are based on the EFAFLEX patented spiral technology. EFAFLEX Series S High-speed doors achieve peak speeds of up to 4 m/s. No other door with comparable features lets you through anywhere near as fast as that.



R Series

High-speed roll-up doors

High-speed roll-up doors are the economical doors systems we provide for indoor applications. EFAFLEX R Series High-speed doors differ from conventional roller doors by their extremely high speeds when opening and closing. High-speed roll-up doors are used to minimize draughts, keep temperature zones constant and to insulate sound.



F Series

High-speed folding doors

The horizontal folding motion of High-speed folding doors ensures that the entire vertical clearance is made immediately free. EFAFLEX F Series High-speed doors are capable of withstanding extreme loads, and open and close at high speed. They protect against noise and draughts, save energy and offer impressive heat and sound insulation characteristics.



CR Series

Clean room doors

Creative engineering technology made in Germany: EFA-CR is the door system optimally adapted to clean room applications. The EFAFLEX range includes this series of special doors suited extremely well to special applications at your company. After all, extraordinary requirements for a door demand special technical solutions!



Periphery

Technology & Service

Let us help you choose the optimum, highly individual configuration. We combine safety systems, controllers and technical details specifically for your application. The result is a perfectly concerted technological unit that suits your preferences and the application perfectly.

S Series

EFAFLEX High-speed spiral doors are of impressively high quality, greatest safety, extreme load capacity, and above all: unrivalled speed!

Get state of the art technology into your building with the S Series High-speed doors, and accelerate your work processes enormously.

You select the best – and unique – door system for your application. The fastest door in the world, combined with the best heat insulation – the S Series has this in store for you.







The spiral: everything revolves around it

Maximum service life through minimum mechanical strain

The tried and tested fundamental principle of EFAFLEX High-speed spiral doors remains unbeatable! The perfection of the door blade guides in the patented EFAFLEX spiral is still unrivalled. Only this unique construction combines high opening speeds, longevity and efficiency anywhere in a comparable way.

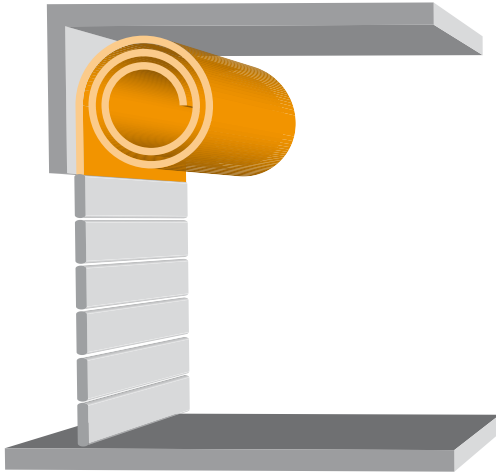
EFAFLEX S Series High-speed doors run quietly and with no wear, thanks to the spiral system. Your door will look new for years and years. No other mechanical principle comes even close to handling the hard challenges of daily operation so smoothly.

It all revolves around one thing: the door blade is not coiled up on a shaft – instead, it is guided into the spiral to save space and keep it in distance. EFAFLEX has patented this principle of operation internationally. That guarantees you a series of unique advantages.

Oval spiral and low-header design

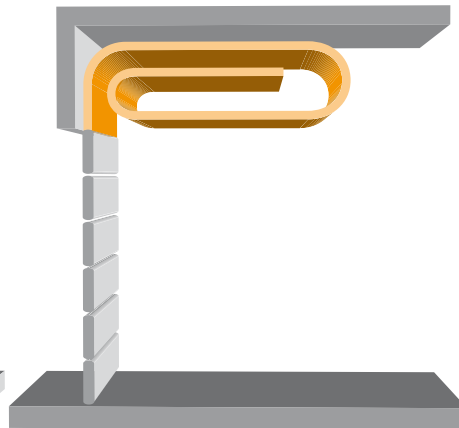
EFAFLEX provides High-speed spiral doors of various different designs. The circular spiral is the standard solution, and also boasts the fastest opening/closing times. If you only have limited space above the door, then you have two space-saving variants to choose from for many door types in the S Series: Oval spiral and low-header.

Round Spiral



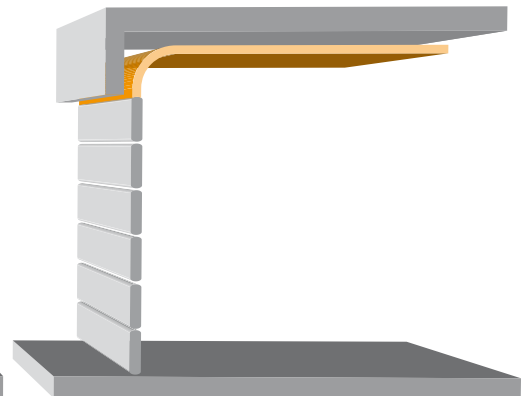
The round spiral is the standard and best solution when you have ample space above the door.

Oval Spiral



Ovals are space-saving shapes to be used in cases of structural limitations.

Low-header



The low-header design guarantees greatest safety for people and vehicles, for example in underground garages and parking centres.



EFA-SST® High-speed spiral door

EFA-SST® is the classic among EFAFLEX High-speed doors, and our most successful series.

The new generation of EFA-SST®

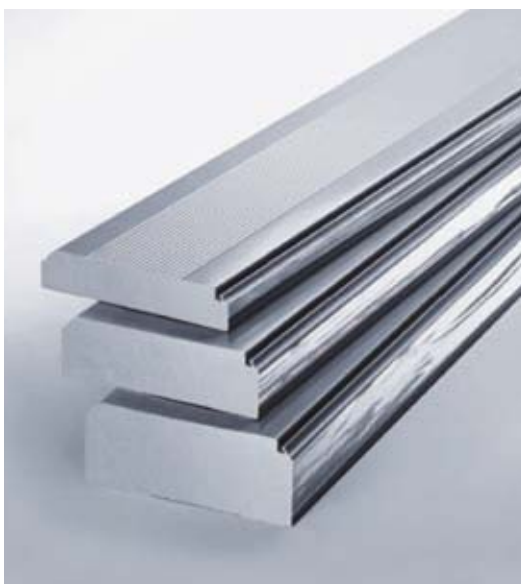
Rising energy prices the whole world over have led EFAFLEX to completely redesign High-speed spiral doors for closing off large halls. The newly engineered design marks an improvement in the physical properties of the door blade and an optimization of its functionality.

Revolutionary and advanced: the new EFA-THERM® laths

We are the world's first manufacturer to provide a series of thermally insulated EFA-THERM® insulation laths for EFA-SST®. These achieve outstanding heat insulation between 0.66 and 1.52 W/m²K depending on door size. The latest door blade is extraordinarily robust, long-lasting, tight and sound-insulating. Depending on how much light you wish to allow in, we can incorporate as many EFA-CLEAR transparent acrylic glass laths as you like into the blade of your EFA-SST®. These are also available in double-wall design.

World innovation: EFA-SST® with self-repairing door blade

Should there ever be a collision, your door will still be serviceable again immediately. You can request EFA-SST® with the EFA-ACS Active Crash System, which fully automatically repairs the door in just a few seconds. The safety mechanism ensures fully automatic, electronically monitored retraction of the door blade after a collision. EFA-ACS eliminates expensive repairs, unnecessary downtimes and a lot of inconvenience



Optimum heat insulation thanks to EFA-THERM® laths: for responsible use of valuable resources, for the sake of the environment and for the reduction of your energy costs!



A lasting clear view with EFA-CLEAR transparent laths!



Safety advantage after a crash: EFA-ACS avoids expensive damage!

The original



We have developed three different variants to meet all different requirements you may have for a High-speed door:

EFA-SST® PREMIUM

Designed for permanent industrial application, this variant will execute easily up to 250,000 load cycles per year. The opening speed is up to 2.5 m/s. Each door comes with its own locking mechanism and the TÜV certified, patented safety-system EFA-TLG®.

NEW: The EFA-SST® PREMIUM is now available at extra width known as the XL model.

EFA-SST® ECO

Capable of up to 200,000 cycles per year, the capacity of EFA-SST® ECO is far above average. The most significant features of this variant of EFA-SST® are robust quality and the usual EFAFLEX reliability, combined with opening speeds of approx. 1.0 m/s.

EFA-SST® BASIC

This variant focuses not on speed but on high quality and extreme capacity. The EFA-SST® BASIC variant fulfils all demands on a modern High-speed door. Top quality, up to 100,000 cycles per year and opening speeds of 0.5 m/s.

EFA-STT®
High-speed turbo-door





Quality you can trust

Capable of 150,000 load cycles – that is opening and closing 150,000 times between maintenance intervals – EFA-STT® is designed for extreme use. Thanks to its sturdy construction, this EFAFLEX High-speed turbo door is guaranteed to function perfectly even under winds of up to 120 km/h. That is the absolute top class in the industry. As such, EFA-STT® makes for a perfect exterior door.

Crystal-clear advantages, transparent to everyone

At every intersection in your company – often approached from both sides at once – a free view through the door gives you a decisive advantage: accidents are avoided and smooth transport processes are ensured.

With laths of crystal-clear acrylic glass, the door blade of EFA-STT® is more than 70% transparent – making it a worldwide unique High-speed door: robust, yet almost entirely transparent.

Clear sight!

The EFA-STT® door blade is held apart in the spiral. Given frictionless operation, the transparent laths provide a clear view to the other side for many years with next to no wear. As a result, the entire door ensures gleaming looks even in hard working conditions.

NEW: The EFA-STT® is now combinable with the clever Active Crash System EFA-ACS!



EFA-STR® High-speed turbo roll-up door



We have built the fastest door in the world for you. With the patented spiral technology, EFA-STR® opens with a phenomenal speed of up to 4 m/s.

With EFA-STR®, your logistics gains speed and efficiency. No stopping. No waiting. When every second counts, you have a distinct advantage with EFA-STR®! Our fastest door guarantees you smooth business operations and an optimum flow of traffic.

The fastest door in the world



World speed and energy saving champion

The speed of EFA-STR® results in another advantage for you that truly pays off: with EFA-STR®, you benefit from enormous energy savings. The fast opening and closing prevents draughts and loss of heat or cold between the inside and outside.

Fast and safe: EFA-STR® with self-repairing door blade

Especially at extremely high speeds, safety is a major concern. The EFA-ACS Active Crash System gives you the best protection. In the event of a collision, the lower door panel module of EFA-STR® can be dislodged up to a nominal height of approx. 100 cm on both sides.

Integrated sensors detect the crash situation and initiate the controlled onward movement to the upper end position. The door panel is then moved upwards at a reduced speed, and is pushed back into the guides on both sides. The door is electronically checked for correct connection. Regular automatic operation then continues already when the door closes again.



R Series

Common to all High-speed doors of the R Series is a construction that takes up little space above the door opening. In the case of roll-up doors, the curtain is rolled up on itself: a cost-effective solution for elastic door blades.

EFAFLEX High-speed roll-up doors are made as a largely maintenance-free modular construction, and are available in many different model variants. For many conceivable combinations of requirements, we have an individual, tried and tested solution!





EFA-SRT® High-speed roll-up door



The highly stressable forklift door

EFA-SRT® is a real allrounder! It is suitable as an interior door or as an extra measure for closing of large halls. The EFAFLEX High-speed roll-up door is a high quality solution for any opening that fork lifts have to pass through regularly.

EFA-SRT® can help keep temperature zones constant, and thus lower your energy bill. In addition to the standard variant, EFAFLEX also offers the EFA-SRT® in various different specialized designs. An EFAFLEX professional will gladly inform you of all possible options.

The classic



A safe option: roll-up door with crash protection EFA-EAS

The engineers at EFAFLEX have developed an intelligent solution for collisions without serious consequences. Upon request, EFA-SRT® can be equipped with EFA-EAS crash protection – a protective system that largely prevents expensive damage to the curtain.

In the event of a collision, the lower curtain module dislodges from its rails on both sides. A sensor signals this to the controller, and immediately stops the door motion. The door curtain and end shield can be easily restored using a manual lever. Your door will be operational again in next to no time.



With the EAS option, you can avoid unprofitable downtimes, and your logistics become even more efficient. EFA-EAS reduces costs: because if nothing is damaged, there's nothing to repair. You save time and money.

EFA-SRT® ECO

The economical solution for interior doors

The EFA-SRT® ECO is particularly impressive for its excellent cost-effectiveness and is suitable for all interior openings frequented by forklifts or people. The High-speed door can also be installed in combination with automatic transport systems or on conveyor systems.



Special structural preparations are only rarely necessary due to the space-saving design (e.g. very thin door frames). That makes the EFA-SRT® ECO more versatile than any other door.

The EFA-SRT® ECO High-speed roll-up door is also available with the ingenious EFA-EAS crash protection option.

The EFA-SRT® ECO easily handles 150,000 load cycles per year. For material handling operations, it guarantees safe and speedy material flow.

EFA-SRT®-EC The hygienic High-speed roll-up door

R Series

Our engineers have developed this door by collaborating with the industries concerned. EFA-SRT®-EC is the optimum solution for all interior passageways with strictest hygienic requirements, such as in the food industry. It fulfills all HACCP and FDA regulations.

EC stands for "Easy Clean"

The frame cover easily unlocks and swivels out for cleaning. The entire interior can be reached by a steam jet. Cleaning agents and condensed air humidity inside the frame can drain out without hindrance.



F Series

Fast, robust, insensitive and economical – EFAFLEX High-speed folding doors offer extremely high utility value at low purchase and operating cost.

EFAFLEX folding doors are also a true advantage in terms of aesthetics. Let us present you with the exceptional versatility in the individual design of your High-speed door, adapted perfectly to any facade.

EFAFLEX High-speed doors – a component of modern industrial architecture.





EFA-SFT® High-speed folding door



Even an 8 m wide and 6 m high EFA-SFT® achieves opening speeds of up to 2.5 m/s, thus effectively helping to save energy.



Robust & economical



From outside, everything is just a facade

In terms of optional features, the EFA-SFT® is the most versatile of all EFAFLEX High-speed doors. There are numerous options for adapting the EFA-SFT® optimally to any facade, with variable wing division, bar arrangement and bracing. The surface of the door blade can be anodized in any colours of the anodized colour chart, or powder-coated in any RAL colours of your choosing.

But interior values also count

The EFA-SFT® consists of aluminium and steel, a combination for highest quality standards. The standard load-bearing parts of the EFA-SFT® are made of galvanized sheet steel. The door blade consists of anodized, non-corroding aluminium and is equipped with a single acrylic panel that allows plenty of daylight into the building. The two-panelled insulation glazing guarantees excellent heat and sound insulation properties.

CR Series

Production in controlled environments is a necessity for many companies these days. An increasing number of regulations and standards being defined demands reliable special doors for clean room applications, for example in the pharmaceutical, medical, biotechnological, aerospace, electronics, automotive and precision engineering industries. The right door is one of the most important components in a clean room!

Under extreme conditions, excellent quality pays off even more quickly: With the CR Series, our engineers have developed and perfectly adapted special doors for controlled production zones.





EFA-CR Special doors for clean rooms

CR Series clean room doors from EFAFLEX are perfectly suited to the requirements in many controlled environments and offer near air-tightness of the accesses. These high performances, high speed doors have a smooth surface structure and no protruding edges. They can easily be cleaned and particle deposits are largely excluded. The GMP-compatible door types of the CR Series are mainly made of V2A stainless steel and conform to the following international standards and guidelines for clean room applications:

- EN 14644
- FED STD 209
- VDI 2083

Additional features included

In addition to their suitability for clean rooms, the CR door Series offers a considerable number of advantages. As with all EFAFLEX high-speed doors, they reduce noise levels, prevent draught and help save energy through their unprecedented opening and closing speeds. As a result of careful attention to detail the EFAFLEX clean room doors are low maintenance.



GMP-compliant clean room door by EFAFLEX.

Application to perfection

*For a view into the clean room:
EFA-STT®-CR.*



The right solution for every case

Let us help you choose the best clean room door to suit your configuration. EFAFLEX CR doors are available in: as a roller door, spiral door, sliding door or vertically opening hatch. The CR Series cleanroom doors are also suited to special applications such as material airlocks and conveyor systems. Your contact at EFAFLEX will inform you of all possible options and provide you with sound advice.

EFA-SRT®-CR.







Reliability of the highest level

For more than 30 years, we have been finding optimum solutions with our customers for every requirement. You also benefit from our competent advice and support, during and after sales.

Custom solutions

Our consultants visit the future installation site for inspection with you. They discuss with you the combination of requirements and work out a long-term, affordable and elaborate overall solution for you individually. Even if you have highly specific special requests, you are in the best hands with EFAFLEX!

Included: best customer service

Fast, assured and reliable – this applies equally to our High-speed doors as well as our delivery. We are quite flexible for requests at short-notice. Of course, we also perform prompt, no-hitch assembly. By the way: We assemble our products exclusively ourselves everywhere in Germany, and do not delegate this important duty to external companies, as is often the case.

Globally present, always local – our field sales representatives

EFAFLEX will not leave you stranded: a friendly and professional contact is always responsible for answering your questions and helping you out if you ever have problems. After-sales service and spare parts providers are under one roof in many locations, and naturally close to you – worldwide!

Our maintenance service: there for you

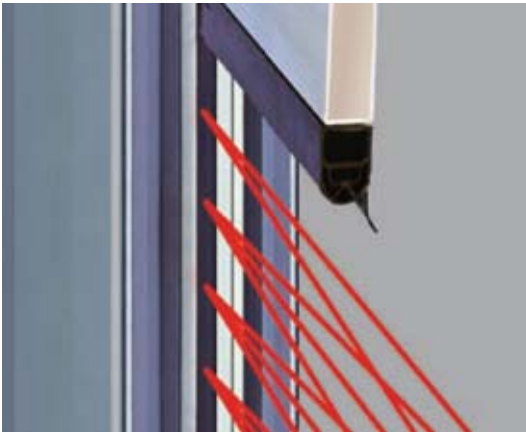
As a part of recommended maintenance agreements, our service department performs the regulation inspections of power-driven doors for you. We service EFAFLEX High-speed doors and also doors from other manufacturers.

The best service is the kind you don't need

Trust is good; meticulous final inspection and a superior warranty is better. And of course: highest manufacturing quality! EFAFLEX High-speed doors are produced using the latest precision manufacturing equipment. By professionals – for professionals.

Innovation in every detail

As leading manufacturer of High-speed doors, EFAFLEX is aware of its responsibility: that is why our High-speed doors guarantee the highest standards of safety and security.



With absolute safety: The EFA-TLG® Door Light Curtain

We have made it our aim to be pioneers also in terms of safety and security: after all, unique door systems deserve a unique safety system! The TÜV certified EFA-TLG® infrared light-line curtain is unique in the world, and entirely self-monitoring. It is installed directly into the side door tracks.



Forefield Safety by Laser Scanner EFA-SCAN®

The world's first laser scanner for door applications is the patented EFA-SCAN®. This enables for both an activation system and safety system to be combined into a single solution. It monitors the complete area in front of the door in a seamless way and is more efficient than other technologies by its ability to also detect direction of movement.



New Combined Technology: Radar and Infrared

This activator combines radar and infrared system with an inventive design – for the most reliable detection system available. The radar technology detects movement and the infrared technology recognises stationary objects. A truly unique combination!

EFA-CON® Switch Cabinet

Compact format, new design and greatest functionality: As of now, the new standard of EFAFLEX controllers is the new generation EFA-CON®. The sleek housing of black polycarbonate in a compact frame format (160 x 430 x 155 mm) takes up considerably less space than ever before. At the same time, EFAFLEX has considerably increased its performance. Main switch, membrane keyboard and information display unit (vacuum fluorescence display) with function diagnosis display are standard. The switch cabinet is designed to be CE compliant according to DIN/EN and VDE/EMC directives.

Controller with the latest microelectronics

The microprocessor control developed by EFAFLEX is a perfectly concerted technological unit with motor, brake and frequency converter. The latest control is equipped with an extremely fast processor. The result: high speed, safety and flexibility. More than 20 digital inputs are available on the standard unit. The controller can be mounted on the motor side of the frame. Cables are laid completely protected in the door frame.



The new EFA-CON® Switch Cabinet, including the fastest microprocessor controller. You remain free to specify the most appropriate activator for your EFAFLEX High-speed doors.

Technical Data:

		EFA-SST®							
		PREMIUM						ECO	
		L	S	ÜS	XL	ISO-60	ACS-DS	L	S
Application	Interior door Lock-up doors	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●
Wind load max. *	According to DIN EN 12424 class or in km/h	2 – 4 –	2 – 4 –	2 – 4 –	0 – 2 –	2 – 4 –	0 –	2 – 4 –	2 – 4 –
Operating forces/safe opening	According to DIN EN 13241-1	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled
Resistance against water ingress	According to DIN EN 13241-1 class	3	3	3	3	3	0	3	3
Air permeability*	According to DIN EN 13241-1 class	3	3	3	3	3	0	3	3
Direct airborne sound insulation R _w *	in dB according to DIN EN 717-1	24	25	26	26	25	22	24	25
U value maximum*	in W/m²K nach DIN EN 13241-1	1.52	0.91	0.66	0.66	0.80	–	1.52	0.91
Door size (in mm)	Width W max.	4500	6000	8000	10,000	6000	4000	4500	6000
	Height H max.	5000	6000	8000	6600	6000	5000	5000	6000
Maximum door blade speed	in m/s	2.5	1.5	1.2	1.0	2.5	2.5	1.0	0.9
Average speed, ca. *	Opening in m/s	2.0	1.2	1.0	0.8	2.0	2.0	1.0	0.9
	Closing in m/s	–	–	–	–	0.75	–	0.6	0.6
	Closing in m/s, with EFA-TLG® door light-line grid	1.0	1.0	0.8	0.4	1.0	1.0	–	–
Door blade guidance	Round Spiral	●	●	●	●	●	●	●	●
	Oval Spiral	●	●	–	–	–	–	●	●
	Low-header	–	–	–	–	–	–	●	●
Steel design	Galvanized sheet steel frame	●	●	●	●	●	●	●	●
	Stainless steel	○	○	–	–	○	○	○	○
	Powder coated in RAL colours	○	○	○	○	○	○	○	○
Door blade	EFA-THERM® laths, double walled, insulated/painted	●	●	●	●	●	●	●	●
	EFA-THERM laths with double-walled transparent laths	–	–	○	○	–	–	–	–
	EFA-ISO-CLEAR double walled, thermally separated/anodized	○	○	–	–	○	○	○	○
	EFA-CLEAR single-walled/anodized	○	○	–	–	–	○	○	○
	Ventilation laths	○	○	–	–	–	○	○	○
	Colour according to RAL (without window panel)	○	○	○	○	○	○	○	○
	Door blade modules made of anodized aluminium E6/EV1	–	–	–	–	–	–	–	–
	Vision panel single-walled/double-walled	–	–	–	–	–	–	–	–
	Non transparent infill single-walled/double-walled	–	–	–	–	–	–	–	–
	Door curtain made of flexible PVC, transparent with warning stripes in different colours	–	–	–	–	–	–	–	–
	Flexible fabric in different colours with/without window	–	–	–	–	–	–	–	–
Fire class	Building Material class DIN 4102	B2	B2	B2	B2	B2	B2	B2	B2
Weight balancing by		Spring	Spring	Spring	Spring	Spring	Spring	Spring	Spring
Designed for approx ... Load cycles per year		250,000	250,000	250,000	150,000	250,000	250,000	200,000	200,000
Collision protection	Active Crash System EFA-ACS/EFA-EAS	–/–	–/–	–/–	–/–	–/–	●/–	–/–	–/–
Drive	Electric motor with frequency converter	●	●	●	●	●	●	●	●
	Pneumatic with electric controller	–	–	–	–	–	–	–	–
Control	EFA-CON®	●	●	–	–	●	●	●	●
	Frequency converter	●	●	●	●	●	●	●	●
	MCP2 with BUS technology	○	○	●	●	○	○	○	○
	Main switch and foil keypad	●	●	●	●	●	●	●	●
	Reversing contactor control/comfort	–	–	–	–	–	–	–	–
Lead	Electricity connection 230V/50Hz	●	●	–	–	●	●	●	●
	Electricity connection 400V/50Hz	–	–	●	●	–	–	–	–
	Circuit breaker	16A(K)	16A(K)	16A(K)	16A(K)	16A(K)	16A(K)	16A(K)	16A(K)
	Compressed air supply (1/2")	–	–	–	–	–	–	–	–
Manual locking		●	●	●	●	○	–	○	○
Emergency opening	Automatic after manual activation	●	●	●	●	●	●	●	●
	Manual activation	–	–	–	–	–	–	–	–
Safety Devices	EFA-TLG® door light-line grid in door closing line	●	●	●	●	●	●	○	○
	Contact edge	○	○	○	○	○	–	●	●
	Light barrier	○	○	○	○	○	–	○	○
	Approach area monitoring	○	○	○	○	○	○	○	○
	Light grid, external	–	–	–	–	–	–	–	–
Safety system including activator	EFA-SCAN® frame/bollard	○/○	○/○	○/○	○/○	○/○	○/○	○/○	○/○
Activators	Connection of all common activators possible	●	●	●	●	●	●	●	●

● Standard, ○ upon request, – Not available, * Depending on door blade, door blade guidance and door size, we reserve the right to make technical alterations!

R Series

F Series

BASIC	EFA-STT®					EFA-STR®				EFA-SRT®				EFA-SFT®			
	L	L	S	ÜS	N	ACS-DS	L	S	N	ACS-DS	ECO	L	S	EC	L	S	ÜS
● ●	● ●	● ●	● ●	● ●	● ●	○	● ○	● ○	● ○	● ○	● —	● ○	● ○	● —	○ ●	○ ●	○ ●
2 – 4 —	3 – 4 —	2 – 4 —	2 – 4 —	3 – 4 —	0 —	2 – 3	2 – 3 —	2 – 3 —	0 —	— 18	— 43	— 38	— 18	4 —	3 —	2 —	
fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	2	2	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0
24	20	20	20	20	18	12	12	12	11	12	12	12	12	21	21	21	
1.52	6.50	6.37	6.28	6.50	—	6.10	5.95	6,01	—	—	—	—	—	4.88	4.66	4.11	
4500	4000	6000	8000	4000	4000	4000	7000	7000	4000	4000	4000	6000	3500	3750	5250	8000	
5000	5000	6000	7800	5000	5000	5000	6000	5000	5000	4000	4000	6000	3750	3750	7000	6000	
0.5	3.0	2.8	2.2	1.8	2.5	4.0	3.2	2.2	4.0	2.0	2.0	2.0	2.0	2.5	2.0	1.5	
0.3 / 0.5	2.5	2.2	1.8	1.5	2.0	3.6	2.8	2.2	3.6	1.5	1.5	1.5	1.5	2.0	1.8	1.0	
0.3 / 0.5	0.75	0.6	0.6	0.75	—	0.75	0.75	0.75	—	0.75	0.75	0.75	0.75	1.0	1.0	0.6	
—	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	—	—	—	—	—	—	—	
● ● ●	● — —	● — —	● — —	— — ●	● — —	● — —	● — —	— — ●	● — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —
● — ○	● ○ ○	● ○ ○	● — ○	● ○ ○	● ○ ○	● ○ ○	● ○ ○	● ○ ○	● ○ ○	● ○ ○	● ○ ○	● — ○	— ● —	● — ○	● — ○	— — ●	— — —
● — ○ ○ ○	— — ● ○ ○	— — ● ○ ○	— — ● ○ ○	— — ● ○ ○	— — ● ○ ○	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —
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— — — — — —	— — — — — —	— — — — — —	— — — — — —	— — — — — —	— — — — — —	— — — — — — —	— — — — — — —	— — — — — — —	— — — — — — —	● ● ● ○ ○	● ● ● ○ ○	● ● ● ○ ○	○ ○ ○ ○ ○	— — — — — —	— — — — — —	— — — — — —	— — — — — —
B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2
Spring	Spring	Spring	Spring	Spring	Spring	Spring	Spring	Spring	Spring	Weight	Spring	Spring	Weight	—	—	—	—
100,000	150,000	150,000	150,000	120,000	200,000	150,000	150,000	120,000	150,000	150,000	150,000	150,000	150,000	200,000	200,000	200,000	200,000
—/-	—/-	—/-	—/-	—/-	●/-	—/-	—/-	—/-	●/-	—/○	—/○	—/○	—/-	—/-	—/-	—/-	—/-
—/○ —	● —	● —	● —	● —	● —	● —	● —	● —	● —	● —	● —	● —	● —	○ ●	○ ●	— ●	— ●
—/● —/○ — —/○ ●/○	● ● ○ ● —	● ● ○ ● —	— ● ● ● —	● ● ○ ● —	● ● ○ ● —	● ● ○ ● —	● ● ○ ● —	● ● ○ ● —	● ● ○ ● —	● ● ○ ● —	● ● ○ ● —	● ● ○ ● —	● ● ○ ● —	○ ○ ● ● —	○ ○ ● ● —	— — ● ● —	— — — — —
● ○ 10/16A(K)	● — 16A(K)	● — 16A(K)	— ● 16A(K)	● — 16A(K)	● — 16A(K)	● — 16A(K)	● — 16A(K)	● — 16A(K)	● — 16A(K)	● — 16A(K)	● — 16A(K)	● — 16A(K)	● — 16A(K)	● — 16A(K)	● — 16A(K)	● — 16A(K)	● — 16A(K)
— ○	— ○	— ○	— ○	— ○	— ○	— —	— —	— —	— —	— —	— —	— —	— —	— ○	— ○	— ○	— ○
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—/- —/○ —/○ —/○ —	○ ● ○ ○ —	○ ● ○ ○ —	● — ○ ○ —	○ ● ○ ○ —	● — — ○ —	○ ● ○ ○ —	○ ● ○ ○ —	○ ● ○ ○ —	● — — ○ —	— ● ○ ○ —	— ● ○ ○ —	— ● ○ ○ —	— ● ○ ○ —	— ● ○ ○ —	— ● ○ ○ —	— ● ○ ○ —	— ● ○ ○ —
—/- —/●	○/○ ●	○/○ ●	○/○ ●	○/○ ●	○/○ ●	○/○	○/○	○/○	○/○	—/○	—/○	—/○	—/○	—/○	—/○	—/○	—/○
—/●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●



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