

# High-speed doors

for Material – Transport – Logistics

MTL Series



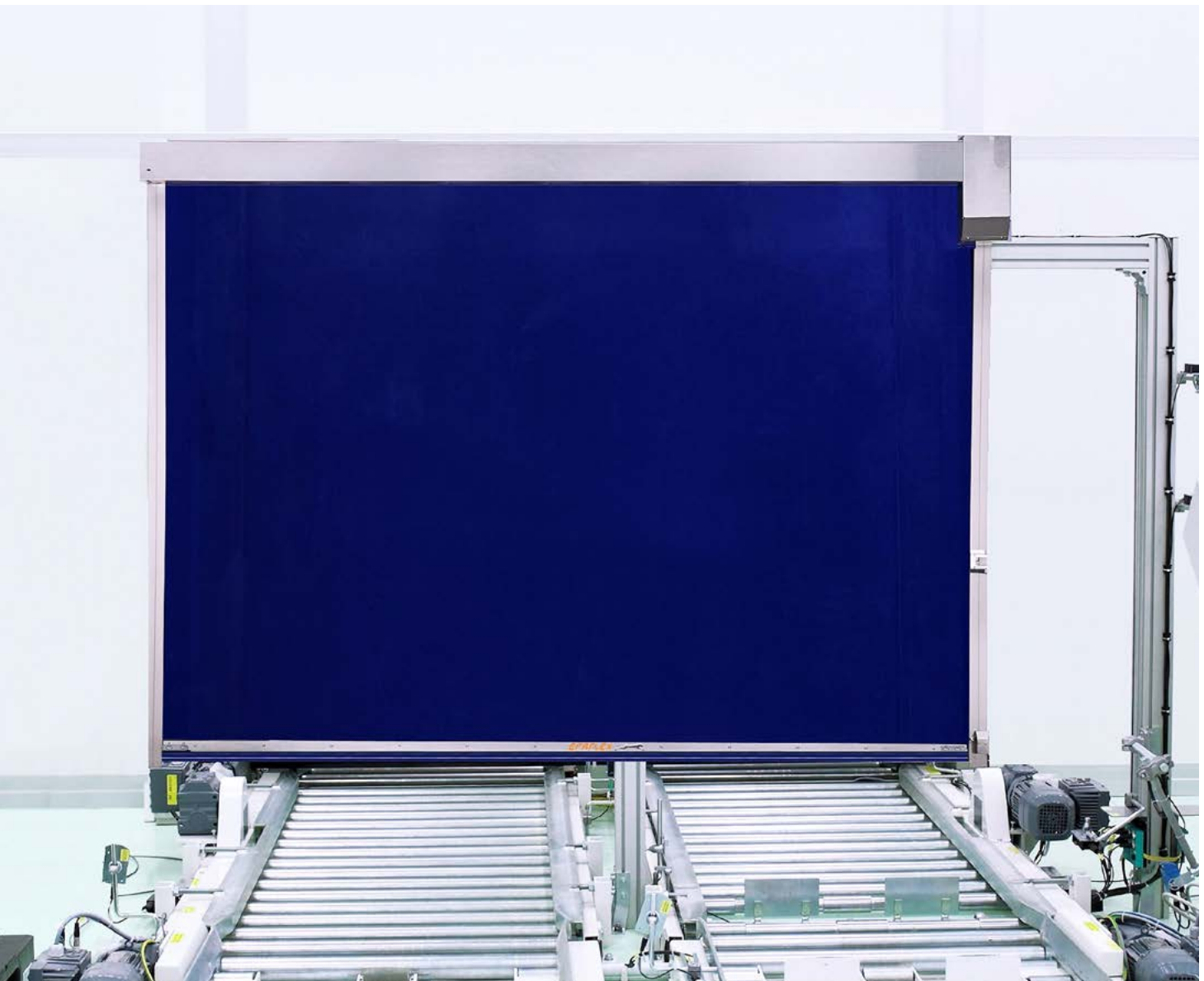


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# MTL Series

The abbreviation MTL stands for Material – Transport – Logistics. The unique, modular design of the EFA-SRT® MTL components makes a critical difference here: Combine perfectly matched and mutually variable modules to create an optimum solution for professional material flows, perfect transport and efficient logistics.





#### **EFA-SRT® MTL AT A GLANCE:**

- High-speed roll-up door for industrial and commercial applications in the field of materials handling technology
- Particularly suitable for confined spaces (door frame width just 60 mm)
- Opens in up to 1.5 m/s
- Closes in up to 1.0 m/s
- Maximum of 6 cycles per minute
- Standard sizes up to w=3,000 mm, h=3,000 mm

## **The high-speed roll-up door for logistics.**

### **EFA-SRT® MTL**

The EFA-SRT® 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 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 field of "Material – Transport – Logistics" (MTL).

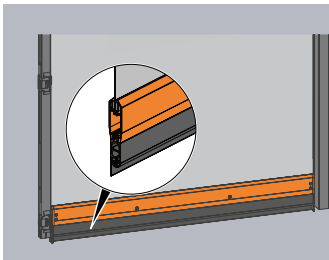
# Individually configurable end elements

In logistics, there is initial differentiation between the following areas of application:

## EFA-SRT® MTL AS ACCESS RESTRICTION (FTM) WITH PERSONAL PROTECTION

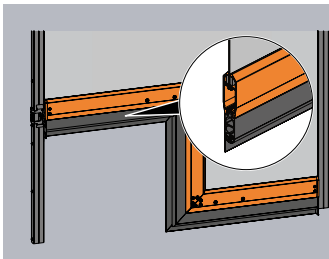
To guarantee the protection of persons, doors in danger zones are equipped with safeguarding systems such as a safety contact strip and light barrier or a door light grid (DLG). A typical application would be the use of an

EFA-SRT® MTL at the end of a roller conveyor, at the transfer point from an automatic conveyor system to hand pallet trucks driven by workers, for instance.



### STRAIGHT END ELEMENT

For all areas of application, a horizontally continuous end profile with safety edge in conjunction with light barrier(s) can be used as the end element of the door leaf. We also offer the possibility of protection with a door light grid (DLG).



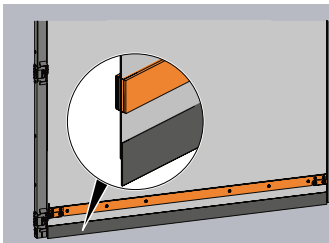
### END ELEMENT WITH DOOR LEAF EXTENSION

Thanks to the individually configurable, local door leaf extension, optimal adaptation to on-site conditions is possible. The door leaf extension is equipped with a horizontal safety edge on the end profile as shown in the drawing. In addition, the door closing level is monitored by light barrier(s).

## EFA-SRT® MTL AS ACCESS RESTRICTION (FTO) WITHOUT PERSONAL PROTECTION

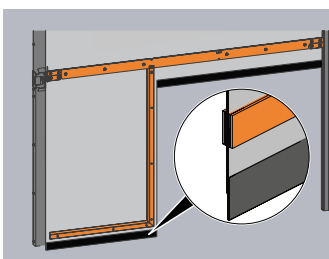
Access to danger zones is made more difficult by the door, but not prevented completely. In areas that are reserved for conveyor technology, it is not necessary to equip MTL doors with personal protection. This is referred to as "access restriction", because during regular

operation, no persons are allowed to enter the system, and access is only permitted for instructed personnel after the entire system has been shut down, e.g. for service work and/or inspection purposes.



### STRAIGHT END ELEMENT

The use of a door light grid is not possible when using this end element, which consists of overlaid steel sheets. Light barriers can optionally be integrated.



### END ELEMENT WITH DOOR LEAF EXTENSION

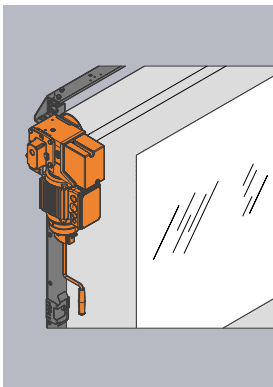
Thanks to the individually configurable, local door leaf extension, optimal adaptation to on-site conditions is possible. The door leaf extension is reinforced with aluminium profiles. The use of a door light grid is not possible when using this end element. Light barriers can optionally be integrated.

# Wide range of drive types

## VARIOUS DRIVE MODULES

The EFA-SRT® MTL is used for all applications in intralogistics. Based on the installation situation, the space conditions and the process-related specifications, you will always find a suitable drive. We use frequency converters as standard to ensure a long service life and dynamic door operation. Various emergency operation

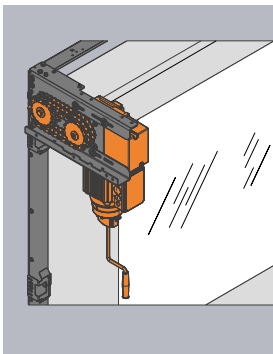
methods, safety and pulse encoder systems are available as required. This guarantees the protection of persons and smooth operational processes. Furthermore, the use of mechanical and/or inductive limit switches (up to Cat IV) is possible.



### 1 DIRECT MOUNT DRIVE WITH WORM GEAR WITH GEAR BREAKAGE PROTECTION

**ASN (FTM, FTO)**

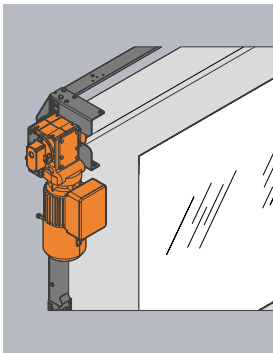
|   |   |
|---|---|
| Mechanical emergency operation                                | Using manual emergency operation / crank        |
| Performance class / type of protection                        | 0.55 kW, 100 Hz, IP54                           |
| Position recording  | Absolute encoder (no reference travel required) |
| Use with access restriction (passenger traffic – FTM)         | Standard  |
| Use with access restriction (without passenger traffic – FTO) | Option  |



### 2 CHAIN DRIVE WITH WORM GEAR WITH GEAR BREAKAGE PROTECTION

**KSN (FTM, FTO)**

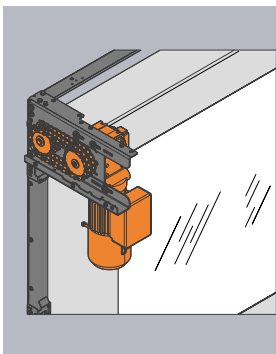
|   |   |
|---|---|
| Mechanical emergency operation                                | Using manual emergency operation / crank        |
| Performance class / type of protection                        | 0.55 kW, 100 Hz, IP54                           |
| Position recording  | Absolute encoder (no reference travel required) |
| Use with access restriction (passenger traffic – FTM)         | Option  |
| Use with access restriction (without passenger traffic – FTO) | Option  |



### 3 DIRECT MOUNT DRIVE WITH BEVEL SPUR GEAR

**AKS (FTO)**

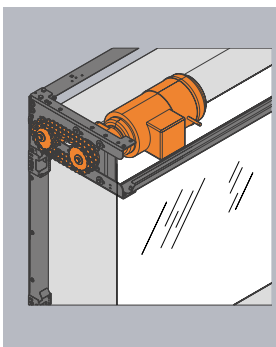
|   |  |
|---|--|
| Mechanical emergency operation                                | Without emergency operation function   |
| Performance class / type of protection                        | 0.75 kW, 100 Hz, IP54  |
| Position recording  | Incremental encoder, optional: Absolute encoder (no reference travel required) |
| Use with access restriction (without passenger traffic – FTO) | Standard   |
| Use with access restriction (passenger traffic – FTM)         | Not possible   |



#### 4 CHAIN DRIVE WITH BEVEL SPUR GEAR

**KST (FTO)**

|   |  |
|---|--|
| Mechanical emergency operation                                | Without emergency operation function   |
| Performance class / type of protection                        | 0.75 kW, 100 Hz, IP54  |
| Position recording  | Incremental encoder, optional: Absolute encoder (no reference travel required) |
| Use with access restriction (without passenger traffic – FTO) | Option   |
| Use with access restriction (passenger traffic – FTM)         | Not possible   |



#### 5 CHAIN DRIVE WITH SPUR GEAR

**KSR (FTO)**

|   |   |
|---|---|
| Mechanical emergency operation                                | Without emergency operation function            |
| Performance class / type of protection                        | 1.5 kW, 100 Hz, IP54                            |
| Position recording  | Absolute encoder (no reference travel required) |
| Use with access restriction (without passenger traffic – FTO) | Option  |
| Use with access restriction (passenger traffic – FTM)         | Not possible                                    |





# The customised plant solution.

## EFA-SRT® MHT Compact

Capable of up to 500,000 load changes per year, the innovative EFA-SRT® 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.

### HIGHEST NUMBER OF OPERATING CYCLES

Thanks to its robust and durable design, the door effortlessly manages up to 500,000 cycles per year. This is the highest number of load changes on the market.

### SELF-SUPPORTING CONSTRUCTION

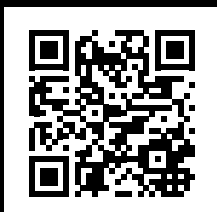
For use in complex systems, EFAFLEX offers a compact and tailor-made solution with the new EFA-SRT® MHT Compact high-speed roll-up door. Due to its self-supporting construction and the control integrated into the frame, it can also be installed in cramped, or limited space locations. In addition, depending on the requirements, different curtain sections are possible for the conveyor technology.

### MODERN PLANT DESIGN

Due to its easy integration and system design, the EFA-SRT® MHT Compact is ideally suited for use on automatic conveyors or transport systems. The roll-up door ensures a safe and fast material flow and is mainly installed in the airport area. It not only impresses with its modern design, but also with its compact structure: The high-speed roll-up door has a complete cover and has no projections or protruding screws.

### 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



For more information on the MTL Series visit:  
[www.efaflex.com/mtl-series](http://www.efaflex.com/mtl-series)

# Control modules available

Depending on your individual requirements, you can choose between various high-performance control units: We offer the EFA-TRONIC® or EFA-TRONIC® Professional in conjunction with the drive types ASN (1) and KSN (2) for FTM applications. The EFA-TRONIC® Light is only available together with the AKS drive (3) as standard for FTO applications. Upon request, this, as well as the KST (4) and KSR (5) variants, can be implemented as EFA-TRONIC® or EFA-TRONIC® Professional at extra

cost. The latter two control units can be equipped with a multitude of interfaces upon request.

The unique, modular design of the EFA-SRT® MTL components makes the difference: Combine perfectly matched and mutually variable modules to create an optimum solution for professional material flows, perfect transport and efficient logistics.



EFA-TRONIC® Light



EFA-TRONIC® Professional



EFA-TRONIC®



## WALKING INNOVATIVE PATHS TOGETHER

In deciding on an EFAFLEX high-speed door, you opt for the world's leading technology and benefit exclusively from our technical edge. We are dedicated to our doors, and although we have achieved successes, we refuse to rest on our laurels. That is why we are constantly working on developing our products further, creating new solutions for your areas of application.

# Technical details

## High-speed doors intralogistics

|   |  | MTL Series   |                      |
|---|--|--------------|----------------------|
|   |  | EFA-SRT® MTL | EFA-SRT® MHT Compact |
| Application                                       | Interior door  | ●            | ●                    |
| 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 <sub>w</sub> * | 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                |
| Average speed, approx.*                           | Opening in m/s   | 1.5          | 1.5                  |
|   | Closing in m/s   | 0.6          | 0.8                  |
|   | Closing by door light grid EFA-TLG® in m/s   | 1            | –                    |
| Guide of door leaf                                | Round Spiral   | –            | –                    |
| Steel design                                      | Galvanized sheet steel frame   | ●            | ●                    |
|   | Powder coated in RAL colours   | ○            | ○                    |
| Door leaf   | EFA-CLEAR® Vision laths single-walled  | –            | –                    |
|   | EFA-VENT® Ventilation laths  | –            | –                    |
|   | EFA-ALUX® Aluminium laths  | –            | –                    |
|   | Colour according to RAL (without vision panel)   | –            | –                    |
|   | Door curtain made of flexible PVC, transparent with warning stripes in different colours | ●            | –                    |
|   | flexible fabric in different colours with/ without vision panel                          | ○/○          | –/●                  |
| 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   | ●            | ●                    |
| Control   | EFA-TRONIC®  | ○            | –                    |
|   | EFA-TRONIC® Light  | ●            | ●                    |
|   | EFA-TRONIC® Professional   | –            | –                    |
|   | Main switch and foil keypad  | –/●          | –                    |
| Lead  | Electricity connection 230 V/50 Hz   | ●            | ●                    |
|   | Electricity connection 400 V/50 Hz   | ○            | –                    |
|   | Circuit breaker  | 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  | ○            | –                    |
|   | Contact edge   | ●            | –                    |
|   | Light barrier  | ●            | –                    |
|   | Approach area monitoring   | ○            | –                    |
|   | Light grid, external   | ○            | ○                    |
| Safety system including activator                 | EFA-SCAN® frame/bollard  | –/○          | –/○                  |
|   | LZR®-WIDESCAN  | ○            | ○                    |

● Standard, ○ upon request, – Not available, ○(\*) Depending on the type of drive,

\* Depending on door leaf, guide of door leaf and door size, we reserve the right to make technical alterations!

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EFAFLEX® is a registered and legally  
protected trademark.

Subject to technical changes. Some  
diagrams depict special features.

Overall design:

[www.creativconcept.de](http://www.creativconcept.de) 09 | 2024

**EFAFLEX**   
safe high-speed doors