EFAFLEX - EFA-STR® - High-speed Turbo Roll-up Door

Product Technical Statement: 112925

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EFA-STR® Turbo Roll-Up Door: World's fastest, durable, high-traffic solution with advanced safety.
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Level of assurance needed to demonstrate NZ Building Code Compliance

LOW

Supporting documentation should include self-assessment and technical information by manufacturer

EFAFLEX - confirms that this minimum level of assurance has been met or exceeded by the following:
ift-Product Passport
Industrial doors and gates according to EN 13241 - 16-002369-PR01 (PP-D01-0203040

BPIR

The following information has been provided by EFAFLEX - demonstrating how this product complies with the Building Product Information Requirements.

masterspec partner

Technical Statement

Product Class

CLASS 2

Product Description

The EFA-STR® is a high-speed turbo roll-up door designed for industrial applications where fast, efficient, and reliable access is essential. It is ideal for logistics, manufacturing, and high-traffic environments.

The door features a flexible PVC fabric door leaf reinforced with anodized aluminum rods for stability. The leaf is modular, allowing quick replacement of individual segments. It operates using a spiral system that ensures contact-free guidance of the door leaf, minimizing wear and noise.

Key Components:

- Self-supporting galvanized steel frames.
- High-frequency gear brake motor for smooth, reliable operation.
- Tension spring mechanism for weight balancing and manual opening during power outages.
- Precision ball-bearing rollers for quiet, smooth guidance.
- Microprocessor control unit with frequency converter for precise operation.

Special Features:

- Opening speeds up to 4.0 m/s for high efficiency.
- Modular design for cost-effective maintenance.
- Noise-reducing, wear-free operation with spiral technology.
- Compliant with DIN EN 13241-1 safety standards, with wind resistance up to class 4.

Accessories and Fixings:

- Integrated TÜV-approved door line light grid (EFA-TLG®) for enhanced safety.
- External control options, including remote operation and sensor-based triggers.

Scope of use

The EFA-STR® High-Speed Turbo Roll-Up Door is intended for industrial applications requiring fast, reliable, and efficient access. It is suitable for both interior and exterior installations in logistics hubs, manufacturing facilities, warehouses, and other high-traffic environments. The door performs effectively in areas where temperature control, wind resistance, or contamination prevention is necessary. It can withstand wind loads up to Class 4 (DIN EN 12424) and is compatible with openings up to 7,000 mm in width and 6,000 mm in height. For external use, protective finishes such as stainless steel may be required in high-moisture or corrosive conditions.

The door must be installed on a stable, self-supporting frame and a level, reinforced surface. It requires a power supply of 230V or 400V at 50 Hz, with an appropriately rated circuit breaker. The system is not suitable for environments with extreme cold below -30°C unless specifically modified with insulation and heating components. Installation must adhere to manufacturer guidelines and site-specific safety regulations to ensure optimal performance and compliance.

New Zealand Building Code (NZBC)

The product will, if employed in accordance with the supplier's installation and maintenance requirements, assist with meeting the following provisions of the building code:

- **Clause B1 Structure:** Performance B1.3.1, B1.3.2, B1.3.3(a), B1.3.3(b), B1.3.3(h)

Company Contact Details

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Email:	Brian.Hill@efaflex.com
Website:	https://www.efaflex.com/product-detail/high-speed-turbo-roll-up-door-efa-str/

The EFA-STR® High-Speed Turbo Roll-Up Door demonstrates structural conformance through adherence to AS/NZS 1170.2 for wind actions and DIN EN 12424 for wind resistance, achieving a rating of Class 4. The design addresses imposed loads, self-weight, and structural stability, verified through testing protocols and manufacturer-provided data.

- **Clause B2 Durability:** Performance B2.3.1(b)
  Durability is supported by the use of robust materials, such as galvanized steel and anodized aluminum, designed to withstand environmental conditions and industrial use for a minimum of 15 years. This aligns with the expectations outlined in the NZBC durability requirements.
- **Clause C3 Fire affecting areas beyond the fire source:** Performance C3.7(a)
  The materials used in the door conform to ISO 5660 for fire performance, ensuring they do not produce hazardous quantities of smoke or toxic gases when exposed to heat, thereby meeting fire safety objectives.
- **Clause D1 Access routes:** Performance D1.3.1(b), D1.3.3(a), D1.3.3(n)
  Accessibility requirements are addressed through automated operation and safety features such as the TÜV-approved EFA-TLG® light grid, meeting ISO 13849-1. These features ensure safe, unobstructed entry and exit while maintaining adequate activity space and user protection.
- **Clause E2 External moisture:** Performance E2.3.2, E2.3.3
  The door prevents water penetration through compliance with DIN EN 13241, demonstrating performance against water ingress and maintaining the integrity of walls, floors, and structural elements.
- **Clause H1 Energy efficiency :** Performance H1.3.1(a), H1.3.1(b), H1.3.6(a)
  Thermal insulation and airtightness are supported by a thermal resistance rating of up to 6.0 W/m²K in accordance with DIN EN 12428. This helps to limit uncontrollable airflow and energy loss, contributing to energy efficiency as intended by the NZBC.

Evidence

The product meets the requirements set out in the following documents, or relevant parts of cited standards within the documents:

The EFA-STR® High-Speed Turbo Roll-Up Door is designed to align with the performance requirements of the NZBC. Structural performance (B1) is addressed through adherence to AS/NZS 1170 and DIN EN 12424, supporting wind resistance up to Class 4. The use of durable materials, including galvanized steel and anodized aluminum, supports conformance with durability requirements (B2) for a 15-year lifespan. Safety (C3) is enhanced through non-combustible materials in accordance with ISO 5660. Accessibility (D1) is achieved via automated operation and the TÜV-approved EFA-TLG® light grid, designed in line with ISO 13849-1 for safe movement. Resistance to water and air penetration (E2) is consistent with DIN EN 13241 standards. Energy efficiency (H1) is supported by a thermal resistance rating of up to 6.0 W/m²K per DIN EN 12428, limiting energy loss and airflow. Testing and certifications from EFAFLEX Tor- und Sicherheitssysteme GmbH & Co. KG demonstrate conformance with these standards.

Supporting Evidence

The product has and can make available the following additional evidence to support the above statements:

ift-Product Passport
Industrial doors and gates according to EN 13241 - 16-002369-PR01 (PP-D01-0203040

Use in Service History

Refer to: EFAFLEX References Page EFAFLEX isn't just a globally recognised brand in the area of high-speed doors. Leading national and international companies from all industries rely on our products. Here you will find a selection of implemented projects.

Product Criteria

Design requirements

The EFA-STR® High-Speed Turbo Roll-Up Door is intended for industrial use, suitable for internal and external installations in logistics hubs, manufacturing facilities, and high-traffic environments. It is unsuitable for environments colder than -30°C unless equipped with additional insulation or heating.

Installation requires a stable, self-supporting frame on a level, reinforced surface, and connection to a 230V or 400V power supply with an appropriate circuit breaker. The door conforms to NZBC solutions, meeting AS/NZS 1170.2 for wind resistance (Class 4), DIN EN 13241 for water and air resistance, and DIN EN 12428 for thermal performance.

The system includes modular PVC fabric door leaves, galvanized steel frames, and anodized aluminum reinforcements. Optional accessories include the TÜV-approved EFA-TLG® light grid, stainless steel components, and viewing panels. Components and finishes are available in customizable RAL colors.

Installation requirements

The EFA-STR® High-Speed Turbo Roll-Up Doors should be installed by qualified technicians experienced in high-speed industrial doors. Installation involves securely mounting the frame, connecting and testing electrical components, and calibrating sensors. Adherence to manufacturer instructions, correct tool usage, and precise alignment are essential to prevent operational issues. Installation should take place in stable temperature and humidity conditions to avoid misalignment or material expansion. Ensuring proper calibration of sensors and components minimizes performance issues and maintains safety in temperature-sensitive applications.

Maintenance requirements

Preventative maintenance is suggested in accordance with Efaflex's maintenance schedules to ensure durability and optimal performance. Recommended tasks include regular visual inspections, cleaning, and checks on wear-sensitive parts like seals and sensors. Adjustments to door tension and recalibration of automation features help prevent issues in high-use environments. Key components, such as springs, electrical connections, and safety edges, should be inspected periodically, with replacements as necessary to maintain longevity and functionality. Efaflex can recommend a qualified contractor to perform these tasks and keep detailed records to support NZBC Clause B2 compliance and ensure reliable door operation.

Warrantees

workmanship under normal use conditions. This warranty applies from the date of installation and requires adherence to Efaflex's recommended maintenance schedule to remain valid. Any modifications, unauthorized repairs, or improper use will void the warranty. Efaflex recommends using certified technicians for maintenance and repairs to ensure continued compliance and performance. The warranty does not cover damages resulting from environmental factors, accidental impact, or improper installation. For extended warranty support, Efaflex can suggest qualified contractors to provide ongoing maintenance and inspections

See: Limited Warrantee

Company Product Information

Environmental

At EFAFLEX, sustainability is integral to our family-owned business. We prioritize responsible resource use, producing durable, energy-efficient products that contribute to our customers' sustainability goals. Our commitment extends to employee development and long-term engagement, reflecting our role as a responsible employer globally. Our smart product solutions, like the EFA-EnergySaver, enable clients to assess potential energy, CO_2, and cost savings when using our high-speed doors compared to conventional industrial sectional doors.

See: EFAFLEX Sustainability

Relationships

- Energy Efficiency – made in Germany .0
- EcoVadis silver rating
- BREEAM .o

Videos

The Fastest Door in the World - EFAFLEX STR
EFA-STR®
EFA-STR®

Building Product Information Requirements

Manufacturer

Legal Trading Name:
EFAFLEX Tor- und Sicherheitssysteme GmbH & Co. KG

Company Website:
https://www.efaflex.com

Contact Number/s:
08003323539

Importer

Legal Trading Name:
EFAFLEX NZ

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Company Website:

www.efaflex.com/

Contact Number/s:

0800 3323539

Product Identifier

EFA-STR® EFA-STR® FLEX

Warnings

This product has no warnings associated with it.

Date last validated: **25 November 2024**

Date last updated: **25 November 2024**