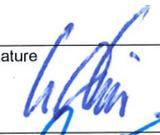


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1. Document release

Editor:	Date 04/12/2021	Name Ralf Diemer	Signature 
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2. Scope of application

The stipulations detailed in FSS 3 are minimum requirements that apply to all Freudenberg companies worldwide. Additional statutory requirements (technical and organizational), which apply at local level, shall be taken into account within the framework of legal compliance.

The organizational instruction applies to Freudenberg employees, leased personnel or contractors working under contract to a Freudenberg company, who work with industrial trucks / forklift trucks.

The technical requirements listed in FSS 3 do not apply to the use of industrial trucks / forklift trucks that are rented or owned by contractors, as long as they are not used at the site for longer than one (1) month. Such vehicles shall comply with the statutory technical requirements that apply at the site concerned. There is no need to apply markings to these industrial trucks.

The SEO may decide to deviate from the requirements specified in this FSS 3 standard on an individual case basis. However,

- an up-to-date risk assessment of the deviation shall provide evidence to show that the residual risk of injury or damage is at the lowest acceptable and viable level (refer to FSS 10).
- the situation shall be reassessed every three (3) years, whereby the near-miss results shall also be taken into account.
- the fields of application / operating conditions for the use of industrial trucks with deviations from FSS 3 shall be specified in writing and approved by the SEO beforehand.

3. Purpose

Freudenberg Standard FSS 3 aims to protect all of the people concerned with or affected by the use of industrial trucks for internal handling, transport and working activities. The purpose therefore is

- to ensure that work is only performed with safe industrial trucks and with extreme personal diligence.
- to ensure that the environment in which industrial trucks are used is suitable for this purpose.
- to ensure that the overarching goal of operating a "forklift free factory" continues to be an objective target for all Freudenberg Business Groups.

4. Implementation and transition periods

4.1. Date of release	04/15/2021
4.2. Implementation at BG level	12/31/2021
4.3. Implementation at site level	12/31/2021
4.4. Transition period Attachment 1a (3 years)	12/31/2024
4.5. F&Co HSE Assessment	from 01/01/2022

5. Definition of terms

5.1. Forklift free factory

The overarching goal of a "forklift free factory" does not mean that forklift trucks will no longer be used and will be replaced by other types of industrial trucks. It should rather be interpreted as meaning that efforts should be made to reduce the number of industrial truck movements to a minimum by optimizing the planning of logistic processes.

5.2. Supervisors (direct superiors)

Supervisors are directing personnel, who are authorized to issue instructions to the driver / operator of an industrial truck directly.

5.3. Powered Industrial trucks

The specific requirements in FSS 3 apply to the following powered industrial trucks:

- Industrial trucks with lifting capacity
- (and driving seats or drivers' cabs, as well as side loaders and narrow aisle reach trucks with + without seats) ("Forklift trucks")
- Pedestrian controlled trucks ("Powered Pallet Trucks")
- Tractors with trailer modules ("Logistic trains", "Milk run")
- Driverless transport systems (DTS) (also known as Automated Guided Vehicles AGVs)
- Driverless transport systems are floor-borne systems used inside and/or outside buildings on the premises of a company. They essentially consist of one or more automatically controlled vehicles with their own tractive drives and a contactless guidance system.
- Mobile elevating work platforms (industrial trucks with platforms) ("MEWPs")

Abbreviated form: "Industrial trucks"

5.4. Transport facilities and handling equipment, which are excluded from the scope of application of FSS 3:

- Vehicles, such as heavy goods vehicles, dump trucks, excavation equipment, trailer vehicles, traction engines etc.
- Cranes / lifting gear, such as cranes with load suspension equipment, truck-mounted cranes etc.
- Stationary transport / handling equipment used to store and remove goods in/from high-bay and high-rack warehouses.

6. Roles and areas of responsibility

6.1. The Business Group management assumes responsibility for ensuring that

- Sufficient resources are made available to enable the acquisition, maintenance and operation of industrial trucks that comply with the requirements of this FSS 3, particularly for smaller site organizations.
- The concept of a "forklift-free factory" is implemented to the greatest extent possible when planning new manufacturing facilities.
- All SEOs and all supervisors who are responsible for the use, acquisition and operation of industrial trucks receive regular and appropriate courses of training concerning the necessary statutory safety requirements relating to industrial trucks and the safety requirements that apply within Freudenberg.
- All accidents and near misses occurring in the working vicinity of industrial trucks are reported and analyzed promptly and completely in order to initiate improvement measures without delay.
- The industrial trucks used at the sites comply with the requirements of FSS 3 within the framework of conducting audits. The audits also include appraisals of warehouses, racks, ramps, docking stations and roadways (inside and outside), up-to-date risk assessments and appropriate measures and regulations derived from these.

6.2. The Business Group HSE functions assume responsibility for

- Introducing a process for implementation of the requirements defined in FSS 3.
- Random checks to verify compliance with the requirements specified in FSS 3 at the sites within the framework of audits (e.g. HSE assessments).
- Supporting the sites with respect to training & qualification measures.
- Supporting the sites with respect to the analysis of accidents and incidents occurring in the working vicinity of industrial trucks.

6.3. The Site Executive Officer assumes responsibility for ensuring that

- Industrial trucks and auxiliary equipment used at the site comply with the local statutory requirements.
- The technical requirements detailed in this FSS are introduced, implemented and observed at the site.
- The organizational requirements described in this FSS are introduced, implemented and observed at the site.
- The "forklift-free factory" concept is implemented to the greatest extent possible in the event of a change in existing logistic processes at the plant.
- Deviations are reported to the BG management.
- The responsible supervisors monitor implementation of the stipulations laid down in FSS 3 on a regular basis and document and report on the results of the checks.

- A defined course of action is adopted with respect to personnel measures, such as the definition of action to be taken in the event of failure to obey the instructions for supervisors and employees laid down in FSS 3, while complying with local statutory requirements and involving the staff representatives (where applicable).
- A site-specific RACI matrix with details of the industrial trucks duties and responsibilities is drawn up for the concerned function at the site.

6.4. Supervisors assume responsibility for ensuring that

- Industrial trucks used within their areas of responsibility comply with the requirements for technical safety.
- Industrial trucks and attachments are only used for their intended purpose and in accordance with the operating instructions issued by the manufacturer.
- Personnel are only employed as drivers if they are conscious of the responsible nature of the work assigned to them, fulfill the necessary health requirements and have received the necessary training and briefing.
- The technical requirements detailed in this FSS are introduced, implemented and observed within the areas for which they are responsible.
- The organizational requirements outlined in this FSS are introduced, implemented and observed within the areas for which they are responsible.
- The suitability of the employees assigned to drive / operate industrial trucks is documented at least once a year, establishing whether they have sufficient practical experience or require supplementary training.
- The "daily (technical) check before commencing work" is carried out and documented. Documentation is kept for at least 1 year.
- Unambiguous assignment of responsibility for the daily safety check is assured and its performance monitored where industrial trucks are used by more than one driver / operator.
- Proper use and safe handling of industrial trucks are monitored on a regular basis, as well as compliance with safety regulations.
- Accidents and near misses, damage to facilities, equipment, buildings or vehicles are analyzed promptly and reported to the SEO.

6.5. Personnel in charge of acquiring industrial trucks assume responsibility for ensuring that

- All newly purchased and/or leased industrial trucks comply with the local safety requirements.
- New forklift trucks also satisfy the technical requirements laid down in the current version of this FSS 3 (Attachment 1 a) at the time of acquisition.
- New powered pallet trucks also satisfy the technical requirements documented in the current version of this FSS 3 (Attachment 2 a) at the time of acquisition.

- Orders for industrial trucks that deviate from the requirements indicated in this FSS 3 standard are only placed if the deviating aspects do not give rise to a safety risk. This must be confirmed by means of an up-to-date risk assessment, which is

- (1) signed by the SEO and
- (2) available before the order is placed.

6.6. Personnel responsible for planning and designing roadways, warehouses, loading areas and unloading areas assume responsibility for ensuring that

- The overriding idea of a "forklift-free factory" is taken into consideration during planning.
- Where applicable, the technical requirements stipulated in this safety standard are taken into account and implemented.
- Where applicable, the organizational requirements stated in this safety standard are taken into account and implemented.

6.7. Personnel responsible for logistics assume responsibility for ensuring that

- Where applicable, the technical requirements listed in this safety standard are taken into account and implemented.
- Where applicable, the organizational requirements outlined in this safety standard are taken into account and implemented.

6.8. Drivers / operators of industrial trucks assume responsibility for ensuring that

- The safety relevant technical facilities on industrial trucks are checked before they are used (Attachments 1b, 1c, 1d, 1e, 2b and 3a).
- Industrial trucks are only used for an operation / assignment if they have been checked.
- Accidents and near misses, damage to facilities, equipment, buildings or vehicles are analyzed promptly and reported to the supervisor immediately.
- Any health problems, which could detrimentally affect an employee's momentary ability to handle industrial trucks safely, are reported to the supervisor immediately.
- The applicable safety regulations, stipulations and standards are observed.

7. Requirements

7.1. Technical requirements

7.1.1. General technical requirements

All used **Forklift trucks** shall comply with the technical requirements detailed in Attachment 1 a). The mandatory retrofitting requirements shall be met.

All used **Powered Pallet Trucks** shall comply with the technical requirements specified in Attachment 2 a).

7.1.2. Extended features

The extended features are proposed technical facilities, which enable achievement of the designated "safety objective". Other technical solutions that offer a means of achieving the same safety objective may be used. In this case, however, documentary evidence showing that the designated safety objective has been achieved shall be provided.

7.1.3. Maximum permissible speed

Supervisors shall stipulate slower speed limits, where appropriate, for specific activities (e.g. negotiating blind corners, confusing situations, reduced visibility due to bulky loads, restricted view of crossing vehicles, crossing pedestrians, etc.).

The following maximum speed limits apply as a matter of principle:

Type of vehicle	Max. forwards (in the direction of the forks)	Max. reversing (against the direction of the forks)
Forklift truck (type 1)	10 km/h (6.2m/h)	5 km/h (3.1 m/h)
Reach truck (type 2)	5 km/h (3.1 m/h)	10 km/h (6.2 m/h)
Powered pallet truck	5 km/h (3.1 m/h)	
Logistic train / Milk run	10 km/h (6.2 m/h)	5 km/h (3.1 m/h)
Driverless transport system	5 km/h (3.1 m/h)	

7.1.4. Preventive and corrective maintenance

The industrial trucks and attachments used at the site shall comply with the locally applicable safety standards and be kept in good working order by means of preventive and corrective maintenance.

This also includes ensuring that industrial trucks, auxiliary equipment and attachments are inspected and serviced at least once a year. Compliance with the maintenance intervals / operating hours specified by the manufacturer need to be observed.

Only suitably qualified personnel or appropriately specialized companies shall be instructed to carry out such work.

7.1.5. Attachments / auxiliary equipment

Appropriate safe items of equipment shall be available for loading and unloading work (drum grippers, working cage, fork extensions, ladders / steps etc.). Provision shall be made for sufficient quantities of appropriate barriers, e.g. prohibition and warning signs for temporary routing changes and work in progress.

7.1.6 Roadways (Attachment 4)

The technical requirements for roadways and driving conditions are documented in Attachment 4.

7.1.7 Battery charging stations (Attachment 5)

The requirements for battery charging stations are detailed in Attachment 5.

7.2. Organizational requirements**7.2.1. General organizational requirements**

- Risk assessments shall be carried out in accordance with Freudenberg Safety Standard 10. The principle "No task without a risk assessment" shall apply. The risks and potential hazards requiring particular attention when using Industrial trucks are identified in Attachment 7.
- Where applicable, instructions (Operating instructions) shall be drawn up for the various types of industrial trucks, auxiliary equipment, attachments and battery charging stations used. Refer to Attachment 3 for examples.
- Checklists shall be drawn up and completed for the documented daily safety checks. (Refer to Attachments 1b, 1c, 1d, 1e, 2b and 3a for examples.) The instructions issued by the manufacturer in the user manual shall be taken into account in this respect.
- If the risk assessment comes to the conclusion that a lower speed limit is necessary, the lower speed limit shall be specified and communicated accordingly.
- Access to areas where industrial trucks are used shall be governed by clearly defined rules and the personnel working in these areas (for long or short periods) must be clearly identifiable.
- Clearly defined rules regarding the PPE, accessible areas and permitted activities shall be drawn up and communicated for people delivering or collecting goods.
- Provision shall be made for sufficient quantities of appropriate barriers, e.g. prohibition and warning signs for temporary routing changes and work in progress.
- It shall be possible to identify industrial trucks quickly and easily if there are more than two (2) of them. This ensures that any failure to comply with the safety regulations can be followed up easily. For this purpose, industrial trucks shall have identification markings that are clearly visible (from all sides if possible), e.g. signs with consecutive numbers, and an indication of the responsible company according to site.
- External companies under contract to Freudenberg (contractors), who use their own industrial trucks, shall be required to provide evidence to show that the equipment is in a safe condition, that the local requirements are met and that the driver has received appropriate training and holds a valid driving permit.

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- The contracted external companies shall be briefed in accordance with FSS 8 before commencing work and become familiar with the special regulations and potential hazards that are associated with the site. A written authorization document (driving permit) shall be issued with details of the period of validity and any regional limitations, where applicable.

7.2.2. Requirements for the selection of personnel

People shall only be authorized to drive "Forklift trucks", "Logistic trains" and "MEWPs" independently if they are:

- at least 18 years of age and
- have a suitable state of physical health (e.g. hearing, eyesight, reactions, not suffering from vertigo when operating platform trucks) and mental health for this work.

People shall only be authorized to drive powered pallet trucks if they are at least 16 years of age and have received theoretical and practical training on the handling and use of the safety devices fitted on the truck.

Personnel who are given driving permits for a limited period shall undergo a medical examination to ensure that they have a suitable state of physical health at least once every 24 months.

7.2.3. Requirements for training

- Industrial trucks (forklift trucks, powered pallet trucks and MEWPs) shall only be used following special training and examination in theory and practice by a qualified agency / person.
- A distinction is made between the following courses (initial training):
 - Forklift truck (2-day training course at least)
 - MEWP (1-day training course at least)
 - Powered pallet truck (1/2-day training course)
 - Supervisors of industrial truck drivers / operators (1-day training course at least)

7.2.4. Requirements for training courses / briefings, refresher courses and authorization documents / driving permits (also refer to Attachment 6)

- All employees, contractors and visitors shall receive instruction on the regulations that apply to traffic on the premises and in the potentially hazardous zones where industrial trucks are used, on the risks and hazards associated with industrial trucks and on safe behavior wherever they are in use. ("Working in the potentially hazardous vicinity of industrial trucks".)
- Training courses and briefings for operators of powered pallet trucks may be conducted by qualified supervisors.
- The necessary training courses, briefings and the content of training courses should be oriented to the examples included in Attachment 6.
- Drivers / operators shall receive written, documented instruction on using the equipment before beginning to work with rented or leased machines or newly acquired industrial trucks.
- The annual authorization procedure (renewing the internal driving permit) is linked to a special course of instruction in the potential hazards at the plant and a safety briefing that covers the basic and specific plant safety regulations.
- Special internal training courses shall be held to communicate the safe and proper way to handle and transport hazardous substances, allowing for the specific transport activities and special conditions at the site. A driver / operator shall not be authorized to carry "hazardous substances" if he has not attended these annual training courses. The course of instruction is entered in the authorization document, extending the permit to include the transport of "hazardous substances".
- An authorization document may be issued for a maximum of one (1) year. The authorization document may only be renewed if the driver / operator can produce evidence to show that he has attended the necessary training course / briefing. The authorization document defines geographical and material boundaries.
- Refresher courses to verify the ability to drive forklift trucks, logistic trains / "Milk run" and MEWPs, and training courses for supervisors, must be carried out every 3 years at least. The duration of each course must be at least 50 % of an initial training course in accordance with this standard.

8. Other applicable documents and attachments

8.1. Mandatory attachments

Attachment 1 Forklift trucks

- a) Mandatory technical requirements for forklift trucks
- b) Daily safety check for a forklift truck
- c) Daily safety check for an Logistic train
- d) Daily safety check for an order picker
- e) Daily safety check for a driverless transport system

Attachment 2 Powered pallet trucks

- a) Mandatory technical requirements for powered pallet trucks
- b) Daily safety check for a powered pallet truck

Attachment 3 Mobile elevating work platforms (MEWPs)

- a) Daily safety check for an MEWP

Attachment 4 Requirements to be met by roadways and driving conditions

Attachment 5 Battery charging stations for industrial trucks

Attachment 6 Training courses / briefings

- a) Basic and advanced training courses for forklift truck drivers
- b) Training courses for powered pallet truck operators
- c) Basic and advanced training courses for MEWP operators
- d) Basic and advanced training courses for supervisors
- e) Overview of the requirements in terms of ability, qualification, tuition and authorization documents

Attachment 7 Risks assessment for internal transport activities

8.2. Other applicable documents

Appendix 1: Checklist - Introduction and implementation of FSS 3 (SEO)

Appendix 2: Checklist - Introduction and implementation of FSS 3 (Supervisor)

Appendix 3: Examples of standard operating procedures

Appendix 4: Examples of best practice

8.3. Supporting documents

- VDI 3589 Selection criteria for procuring industrial trucks
- Within Germany only:
 - DGUV Information 208-004 on forklift trucks
 - DGUV Grundsatz [Principle] 308-001 on training for forklift truck drivers
 - DGUV Information 208-019 on MEWPs
 - DGUV Grundsatz [Principle] 308-008 on basic training for MEWP operators

9. Change tracking

Version	Date	Creator	Reason for the change
0	2004-07-01	W. Friebus	
1	2007-03-01	W. Kissel	
2	2013-10-01	W. Kissel	
3	2014-11-01	W. Kissel	
4	2021-04-15	R. Diemer	New structure, inclusion of driverless transport systems, logistics trains, more detailed specifications of technical and organizational requirements (within annexes)