

FIX TRUCK-SAFE® automatic cargo securing system

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Short distance? Frequent shuttle traffic? Automatic loading? Need for time saving? If you answer YES to any of these questions you need fast and secure cargo securing. FIX Truck-Safe is a unique, patented system that secures your cargo in seconds using a proven and tested method that has been in use for decades. FIX Truck-Safe uses same cargo securing fabric as our manual versions FIX Road® and FIX Marine, it's just made to work automatically. Tensioners pull down the fabric and tension the tarpaulin to preadjusted force. The system supervises the tension and re-tensions if needed. As the cargo securing forces are transferred to the tarpaulin there are no straps going across the cargo. Therefore, exact placing of the cargo is not important as the tarpaulin will even out the overall tensioning force.

Here some examples:



Short distance and shuttle traffic usually mean several trips during a day. If loadings are done through the back doors it doesn't matter what type of superstructure is used, curtain sider or box trailer, FIX Truck-Safe will stay out of the way close to the roof during loading operations and tension over the cargo when loading is finished just by pushing a button. Tensioning takes only a few seconds, especially if the system can be tuned in for a certain cargo size. For example, if you need to plan for a shuttle transport with one load per hour, FIX Truck-Safe system is the solution. You do not need to spend time in lashing, only in loading, driving and unloading. With traditional methods you need to reserve time for lashing, which may even be 30-45 minutes. This time is occupying the trailer and the driver from doing what you will make your earnings from. A similar case with one load per hour that is to be moved, will in practice need double investments in vehicles and drivers without Truck-Safe system.

Automatic loading is effective but includes a dilemma, even if the cargo is pushed onboard in a minute, it might take tens of minutes or up to an hour to open the sides, secure the load and close the sides again. Additionally, there might be demands to move

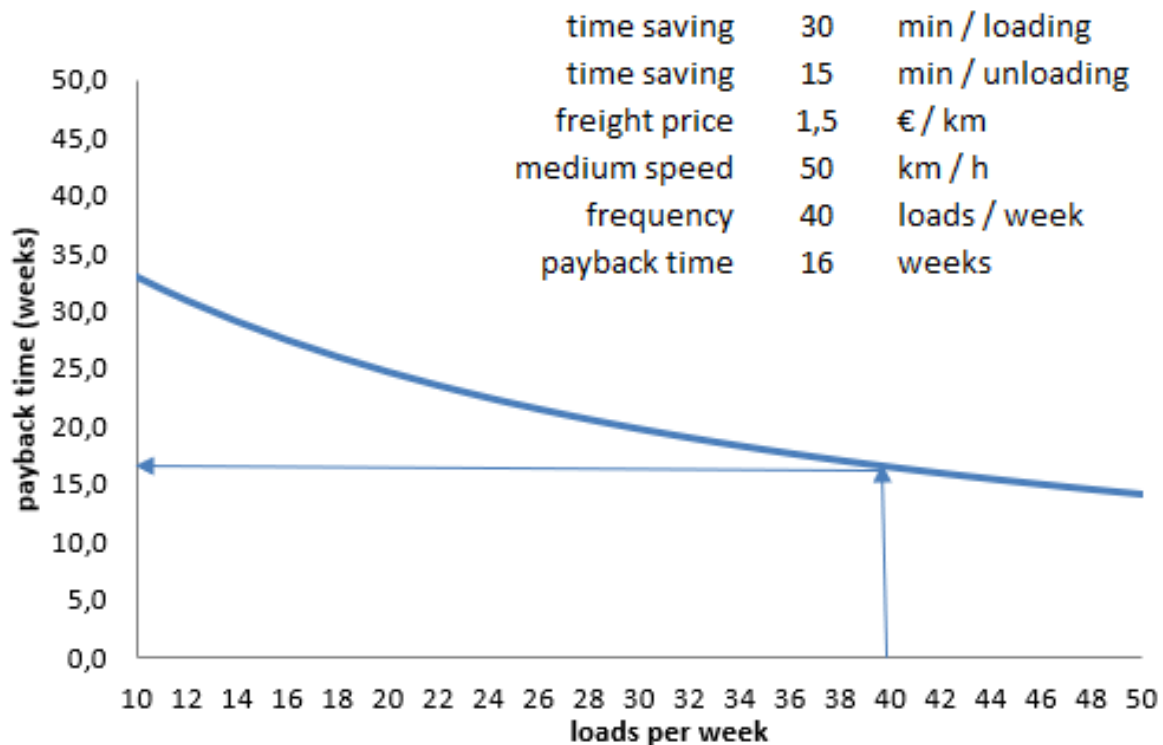
immediately away from the loading dock and there might be a shortage of secure locations for to perform the cargo securing. It might also be so that the cargo needs to be transported in a closed body

trailer which will not allow the driver to secure the cargo after loading. FIX Truck-Safe will solve all these problems, cargo securing will take place in some seconds after loading and it will be released as fast before unloading, the driver might not need to leave the cockpit at all. Together with the trailer maker different solutions have been made, like full side lifting trailers for forklift loading from the side. Often this type of shuttle traffic has dedicated trailers and possibilities to utilize special constructions.

Fast payback of investment.

We have already several regular customers who expand their fleet with FIX Truck-Safe automatic cargo securing system just because it saves so much time. It is economically advisable investment when the trip frequency is high. For example, we have a customer that has a contract to move pulp from a mill 18km to the harbor. The production fills one truck + trailer per hour. With Truck-Safe system the cargo securing time is some seconds and the truck is driving back and forth to the harbor before the next batch is ready for loading. If the cargo is to be secured manually it will take almost an hour and the hauler would need a second truck + trailer combination for the next batch. Investments in such a Truck-Safe system is up to 37k€, but the payback time is very short, in this example only 4 weeks as there are over 150 loads per week in 24/7 shuttle. But even if the number of loads would be only 40 per week the payback time for a similar system would be only 16 weeks.

FIX TRUCK-SAFE payback time



Sales argumentation.

Besides huge time savings several other benefits will appear when starting to use Truck-Safe:

First, the need to place straps and corner protectors to proper places disappear. This means that climbing on the cargo and throwing straps is history. Therefore, also damages and injuries related to these are history.

Secondly, tensioning is done by pushing a button, no need to go around the trailer to place hooks in rings or to tension single tensioners.

The third point, which is slightly harder to see, but is as important for the road safety, is that the cargo securing force will be supervised all time and re-tensioning will automatically take place when needed. Sudden loss of tensioning force can also be programmed to trigger an alarm. Tensioning process can be connected to other devices and therefore it can inform the driver when it's ready. Two-way radio control is also an option.

Fourth benefit is that cargo securing can be released, and cargo unloaded in a loose trailer as well as new cargo can be loaded and secured without the presence of the tractor or other power source. The system includes air tanks, that are pressurized while driving and can be used for tensioning the system as a standalone system. Small battery for signal generation can be added when needed.

System components are all dimensioned for +50...-40°C.

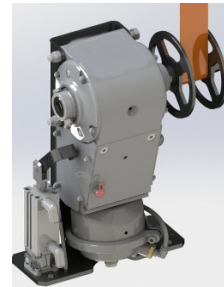
Control – patented central control system with pressure monitoring and electric (24V) signals. Local, remote and radio possibilities.

Tensioner – heavy duty pneumatic tensioner with built-in mechanical locking. Made for outside use in trailers in Nordic climate. Simultaneous operation and pressure tension control.

Release system – cylinder operation simultaneous for all tensioners. Separate service valves for all tensioners and cylinders.

Roof suspension system – bungee suspension optimized to cargo size. Placing and quantity of track mounting brackets according to frequent use.

Fabric – heavy duty proven and tested FIX ROAD fabric to secure the cargo from all directions. No straps across the cargo. Surface pressure even over the cargo regardless of cargo shape.



Process flow.

Careful investigation of case, decision about size, quantity, degree of automation, choice of trailer maker, agree on time table.

Customer needs to tell several facts before we can offer:

- type of cargo (rolls, pallets, bags etc.)
- loading frequency (how many trips per day)
- loading/unloading method and direction (automatic, manual, forklift, from sides or back)
- type of trailer (closed body, curtain sider, gulf wing(s), lifting superstructure)
- size of trailer / cargo (length, width, height) and possible variations in cargo size
- cargo weight, trailer floor surface for cargo securing calculations
- customer preferences on: energy source, need for loose trailer loading / unloading, communication with loading bays, remote control / radio control for the loading and securing functions
- loading bay drawing and communication diagram when automatic loading

FIX Truck-Safe system can be offered to different types of trailers and together with moving floor systems. There need to be 30mm free space between the side walls and cargo or moving floor construction to allow the tensioning of the tarpaulin.

