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# I Target

No interruption of the cool chain during the loading and unloading of the cooling trucks

More and more loading docks are equipped in a way to make the opening of the trucks doors possible after the truck docked at the loading bay first and from the inside of the building instead of forcing the truckdriver to open it on the yard.

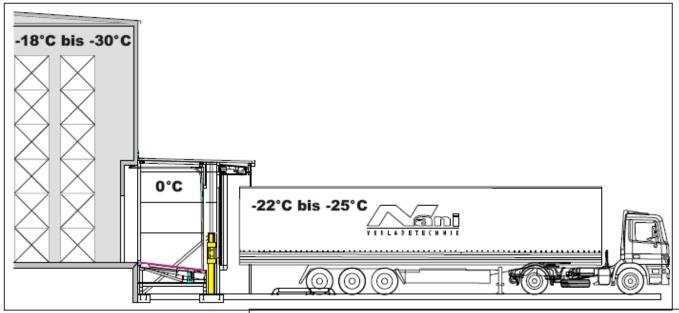
This can be achieved through the following 2 solutions:

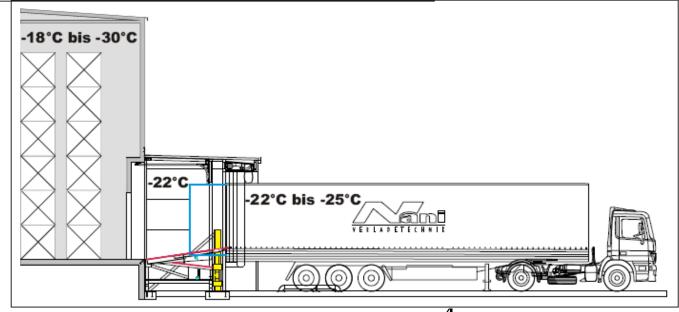
- The dockleveller can be installed inclined.
   The truck doors can be opened above the docklevellers to the interior of the building.
- 2. The ramp surface has clearances on the sides of about ca. 300 to 400 mm deeper.

To safeguard insulated loading bays you need to use bumper systems, wheel guides and traffic lights.



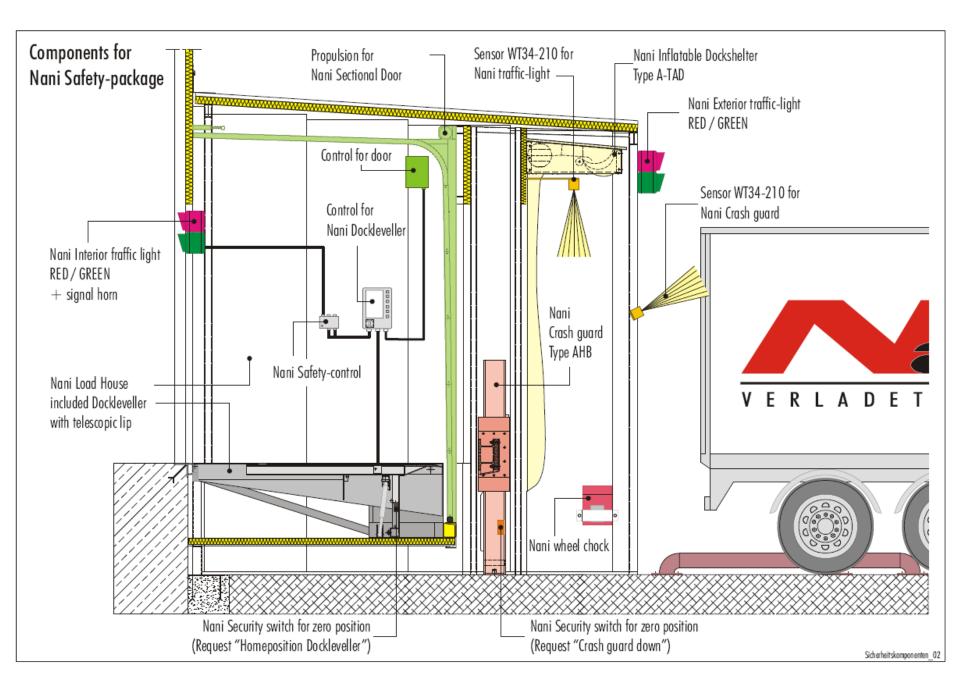
## **II Possible Solutions: Version 1**







### **II Possible Solutions: Version 2**





#### III How to achieve THE solution

#### **Definitions:**

TS Nani Loading House

A-TAD Inflatable Nani-Dockshelter, 3-sided

**A-TAD-U** Inflatable Nani-Dockshelter, 4-sided

AHB Nani-Crash Guard, hydraulic

**EFH** Nani-Whel guides

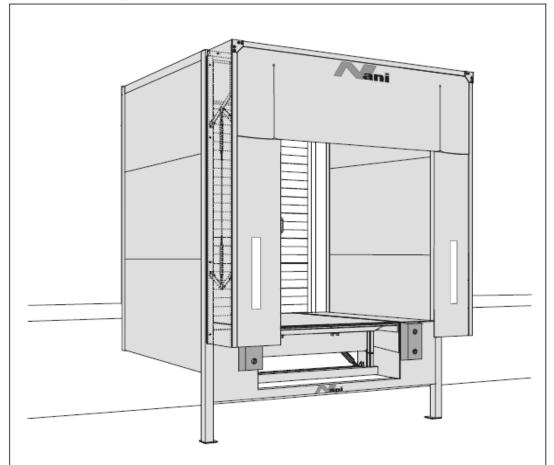
SE-Tor Nani-Sectionaldoor

**ÜLB** Nani-Dockleveller with lip 1000 mm,

Type VB 10







The NANI Insulated Loading House is a bolt on type of structure and can be added to almost any type of main building.

It is the ideal solution to adding a loading bay to an existing building or a new building under construction.

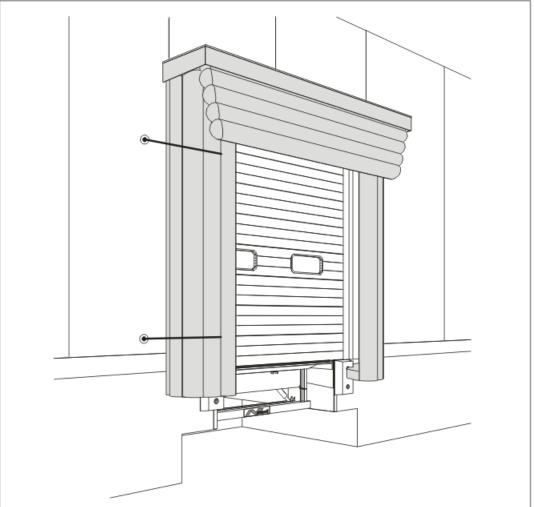
The loading house is a steel shell clad in insulated panels. Incorporated in the steel shell

is a NANI-Dockleveller which has a purpose built tail-lift slot.

On the front of the loading house a NANI dockshelter is installed to complete the totally insulated system.

Insulated doors, loading lights, vehicle wheel guides can all be supplied by NANI to complete your project to the highest standard.





#### The infaltable dockshelter type A-TAD

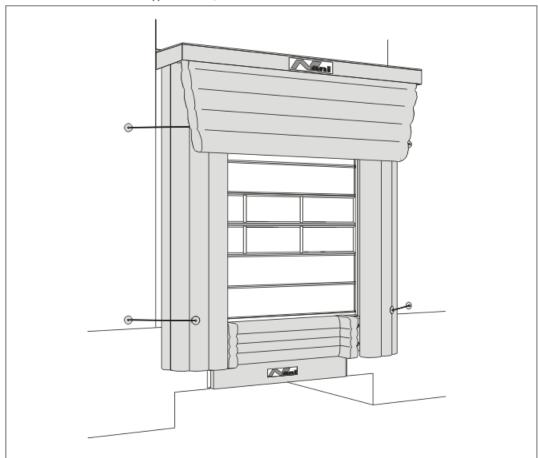
protects the personnel and the goods during the loading or unloading from influences of the weather. Their framework consists of stable hot-dip galvanized profiles. This framework is installed to the wall.

Laterally and above at the framework inflatable PVC cushions are installed.

After driving the vehicle to the ramp, the cushions are blown up. Thus this dock shelter adapts to the truck optimally and seals it outstanding. After the loading the cushions are fast aired out and the vehicle can go away.

To the scope of supply belong the complete dock shelter and all mounting elements and sealing materials.





# We arrange the loading zone air-draught-free!

Especially while the doors are open, a truck stands at the loading dock and the dockleveller lies on the truck it comes to air draught.

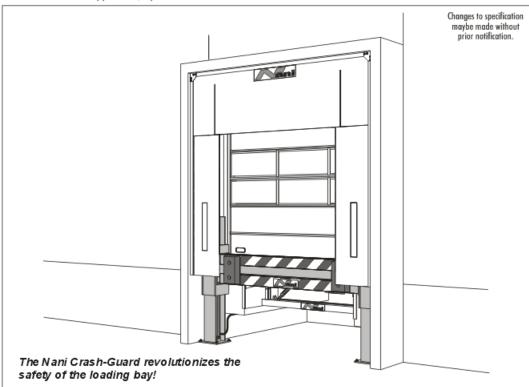
To protect your employees optimally and to reduce the loss of energy we developed the four-sided dockshelter type A-TAD-U.

With this solution we eliminate the air draught upto 90 %.

Your employees do not have to bear up the encumbrances any more and you save enormously the costs of energy.

We achieve excellent sealing-attributes and reach a very high isolating-efficiency. Because of that you get to excellent results with this kind of dockshelter in tempered storages.





This crash-guard is a safety product of highest quality, functionality and reliability.

Operator safety in front of the dockleveller Should a person be standing between the dock and the truck while it drives backwards, the crash-guard provides to the person a survival space between the dockleveller and the truck.

#### It protects the facade

Because the crash-guard is wider than the doorway and because the crash-beam extends continuously from right to left, the truck will always be stopped by the Nani Crash-Guard during the docking procedure; this is true even if the truck docks excentrically. The crash-guard thus protects the complete loading bay and facade.

#### It protects the loading doors

The load floor of ,interchangeable platforms for

flat-bed trucks', containers and refrigerated vehicles is up to 1.70 m high, the ramp-height today is between 1.20m and 1.30 m. During the docking procedure at the loading bay the truck can easily drive beyond the ramp and run into the door.

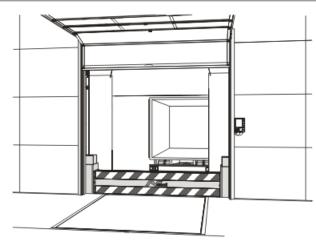
This is perfectly prevented by the Nani crashguard, because the Nani crash-guard can be adjusted to the required height.

#### It protects the vehicles

The standard-buffers typically reach between 40 and 60 cm below the ramp level . However, the lighting of the vehicles in many cases is located in that area and as a result the lighting frequently is damaged, thereby jeopardizing road safety.

The Nani crash-guard is placed above the ramp edge and thus eliminates such damage while at the same time saving cost and improving road safety.





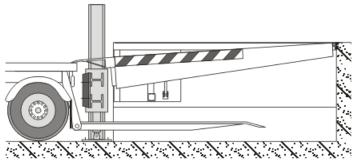
#### It protects the operators on the dockleveller and in front of it!

When no truck is in the loading bay, the crash guard is automatically in its top position, i. e. it stands 400 - 500 mm above the dockleveller. If the door is opened while no truck is docked at the loading bay, the crash-guard serves as a barrier and as a run-off-protection. This keeps a forklift from falling off the dock.

#### Special applications

Durhing loading procedures of fresh meat or when loading occurs in tempered storages the doors of the truck should only be opened when the loading position is reached. Therefore the loading ramp with the dockleveller needs to be lowered until the doors of the truck can freely be opened above the ramp. At a thus lowered loading bay damages of the wall of the hall, of its doors, as well as of the trucks' lighting system are can be eliminated by 100% by the Nani crash-guard!

Traffic lights do not ensure that!

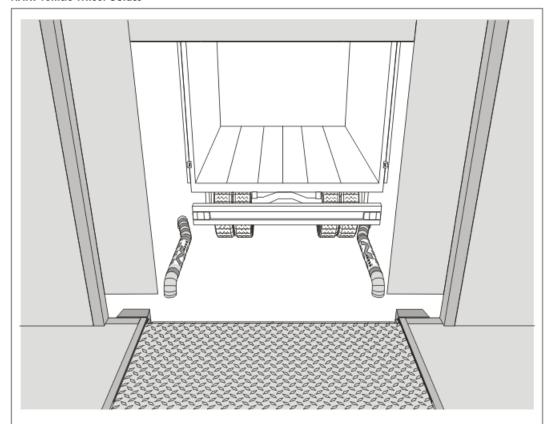


### Tail-lift access opening underneath the leveller

If the crash guard is moved down for the loading, then it is still possible to use the loading dock with truck with tails lifts that still can go underneath the leveller into the tail-lift opening.







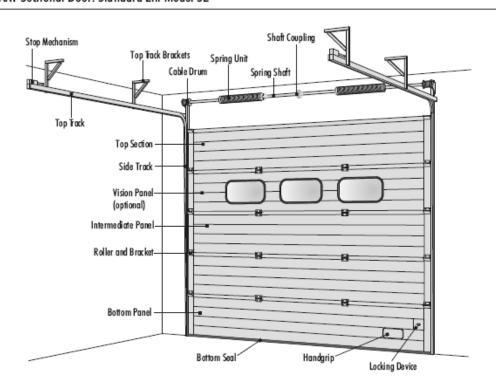
The NANI vehicle wheel guides are the ideal solution to stop vehicles straying off line when parking at the loading bay.

The weel guides are constructed from

heavy gauge steel tube 160 mm diameter.

They are finished in high grade galvanise and black and yellow warning stripes.





#### Standard Lift - SL

The SL is the most common type of track configuration particularly where space above the door opening is limited. To open the door the panils travel upwards and follow the track into a horizontal position.

The weight of the door panels are counterbalanced by the tension on the spring units.

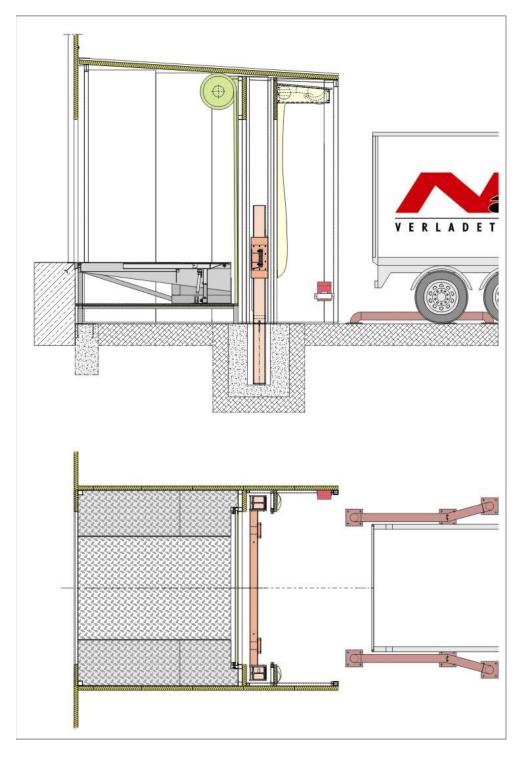
Operation can be either by hand "push up",

handchain mechanism or if required electric motor. Seals are provided on all four sides of the door to give a good seal when the door is in the closed position.

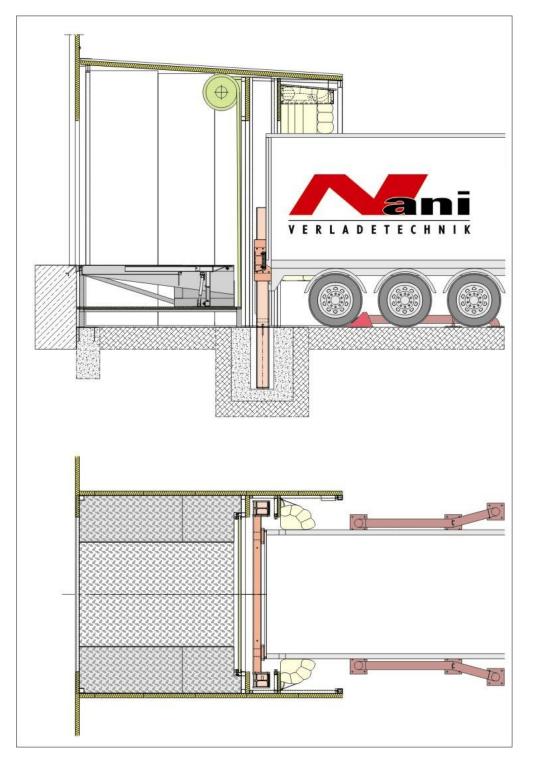
The door panels are manufactured from either aluminium or galvanised steel. The polyurethane foam infill is CFC free.

Any number of vision panels can be provided to suit customer needs. Windows are double glazed.

All doors with electric operation conform to safety regulation of the professional trade association for windows, doors and gates. ZH 1/494.



No truck – Green traffic light.

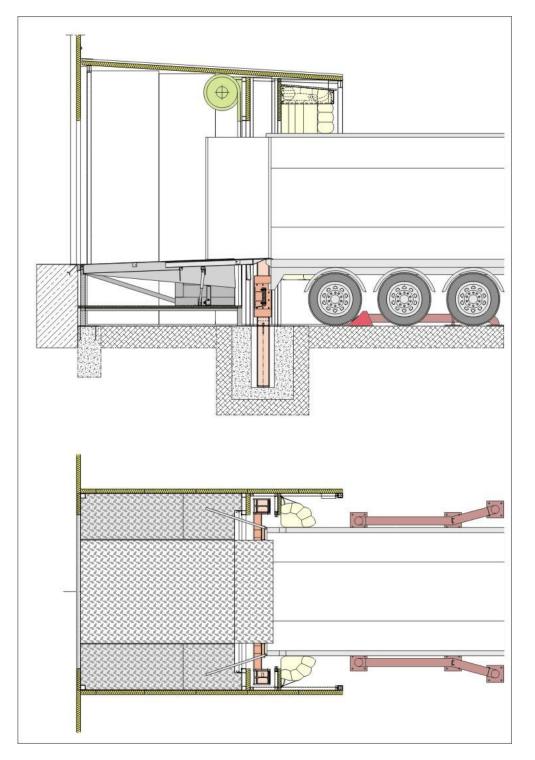


The truck arrives and activates the light sensor.

Traffic light is RED and control gets acitvated.

The Crash Guard gets lowered down.

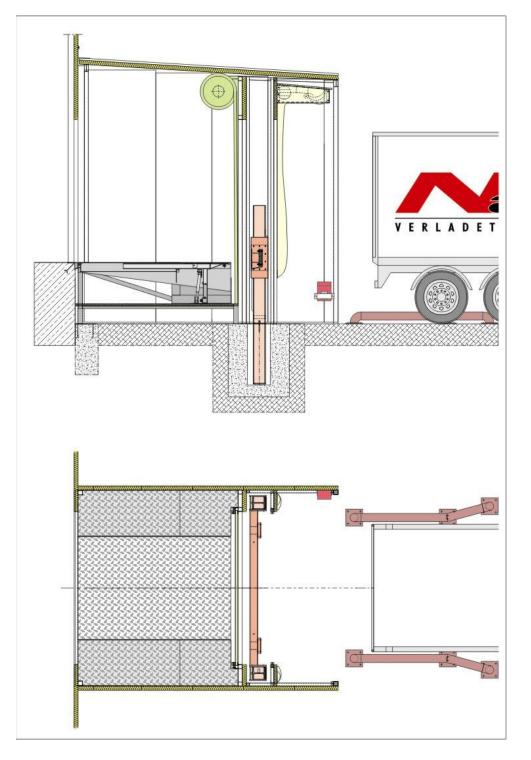
The inflatable dockshelter gets activated.



The sectional door gets opened.

The truck doors get opened.

The dockleveller is put into position.



The loading is finished. Wheelchock removed.

Truck drives away and Crash Guard moves automatically into safety position.



# **IV** Operation Sequence

### 1. The loading dock is closed

No truck in loading position, Dockleveller (Type VB 10) in zero position, door closed, Crash Guard (AHB) in safety position, Dockshelter (Type A-TAD-U) not inflated.

-Exterior Traffic Light "Green"

2. Truck arrives, docks at the loading bay and is detected by a sensor that activates the whole dock system

- Exterior Traffic Light "Red" after 20 Seconds "Red - blinking"



# **IV** Operation Sequence

#### 3. Truck driver safeguards the truck by using the wheelchock

Exterior Traffic Light "Red"

The Crash Guard will be lowered via push-button upto the loading position.

The sectional door is opened and the inflatable dockshelter will be inflated automatically. The door opens up with a time delay.

The truck backdoors get opened into the inner loading area and get secured.

The dockleveller is moved into the loading position. The leveller lip is extended and the fourth side of the dockshelter gets inflated

#### 4. Loading takes place

Exterior Traffic Light "Red"



# **IV** Operation Sequence

### 5. The loading/ unloading is completed

The operators moves the dockleveller into the position zero.

Before the dockleveller lifts with a time delay, the fourth side of the dockshelter gets deflated automatically.

After reaching the position zero for the loading bay, the back doors of the truck can be closed.

The sectional door gets closed and with a time delay the whole dockshelter gets deflated.

- Exterior Traffic Light "Red blinking" (Advice: Wheel chock is still in position)
- 6. Removement of the wheel chock
- Exterior Traffic Light "Green"
- 7. The trucks drives out of the loading bay and the Crash Guard moves automatically into the safety position.





# Loading dock before the docking

The truck docks at the loading dock. Cooling vehicle is still closed.





The truck is activates the light sensor.

Traffic light is RED and the control is activated automatically.





The control lamp signalizes that the truck is ready for loading.





### The Crash Guard will be lowered down.





## The sectional door gets opened.





## The truck doors get opened.





## The dockleveller is put ionto position.





The Air Dehumidifier is located abvove the door of the coldstore to prevent an icing in the loading area.





# Loading takes place. Exterior traffic light shows red.





# The truck doors get closed





# Loading is finished





# Traffic light is green





### The truck can leave

