

# **Loading Bay equipment**



**Quality since 1967** 

**Reliable Doors & Docks** 

# WE HAVE THE SOLUTION

# **FOR YOUR COMPANY**





# **EXPORTING OVER 50 COUNTRIES SINCE 1967**

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# The passion for the work well done, is the key of the Angel Mir growth.

For 50 years, we have manufactured industrial doors and solutions for logistics. We are present in more than 50 countries, developing doors for specific applications that are a reference in the international market.

Our exclusive and original patented systems are originated in our commitment to meet the needs of our customers to the smallest detail. Our equipment is designed to solve functional, safety, technical and aesthetic circumstances.

At Angel Mir, our range of equipment is unique because our goal is customer satisfaction; therefore, we advise and design each product according to the needs of each application and we take care of its installation. We also offer an after-sales service for maintenance and repair throughout the product's lifetime.

#### Ángel Mir

President









Angel Mir factories with 42.000 m<sup>2</sup>



#### **Energy efficiency**

Some products of **Angel Mir**\* have been designed to provide significant energy efficiency and reducing consumption of resources.

With our experience, we support and help our customers to carry out the projects with maximum energy savings through the most appropriate choice of our products. Also, depending on the sector, we recommend the most durable and suitable equipment for each application.

#### **Raw Materials**

For almost 50 years, **Angel Mir**° has always counted on local and European suppliers that provide the best raw materials, in order to achieve the best performance of its loading bay equipment and durability.

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ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

#### **DOCK LEVELLERS**

**Angel Mir**\* loading dock levellers are the perfect bridge linking your warehouse and the loading vehicle. Loading and unloading operations are carried out more smoothly and risks to operators and goods are considerably reduced. Installation is simple and fast. The operation is very intuitive and easy to learn. In order to adapt it to any installation, it is manufactured in different standard sizes. EPOXY-type finish paint.

The structure is designed to withstand higher-than-usual point loads and admit up to 10 centimetres of side unevenness of the vehicle. The top plate has a non-slip chequered surface, including the lip. The front part of the lip is folded and bevelled to allow better adjustment of the vehicle on the ground. The hydraulic units are adapted to the needs of each model.

#### Characteristics

- Structures designed for a standard load of 6 tn, with the option of other higher loads.
- It admits a warp of  $\pm 100$  mm to adapt to unevennesses caused during use.
- Upper plate of the sheet with a 6-8 mm non-slip chequered surface.

- Load-bearing beams or high-strength sheet metal profiles.
- Lip plate with a 13-15 mm thick non-slip chequered surface.
- Two or three independent cylinders: one or two main cylinders for lifting the platform.
- Compact motor-pump equipment.
- Three-phase motor to 220-380 V 1.5 kv/1 kv.
- Pump for a maximum working pressure of 200 bar.
- Hydraulic, sequential logic block, which allows the control of all movements.
- Safety valves and speed regulation.

#### Safety

- Blocking solenoid valve in the event of a power failure.
- Bar for maintenance work.
- Parachute on the cylinders in case of hose breakage.
- Lateral foot protection.
- Step-marking stripes.

#### **Permitted gradients**

- In compliance with EN 1398 it is not permitted to use loading ramps outside the permitted limit for slopes of  $\pm$  12.5% (approx.  $\pm$  7°).

#### Types of **nonslip checkered surface**

Painted steel with EPOXI. RAL 5010 powder resin (blue)



Hot galvanized steel.

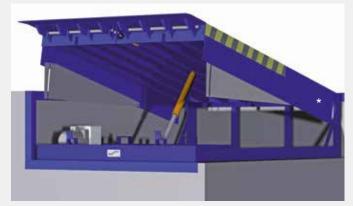


Stainless steel.



#### **HIDRA** Model

Automatic devices at the service of productivity.



\* PVC air seals on both sides of platform.

# **TELESCO** Model

Ideal for refrigerated installations and side loading of vehicles.



PVC air seals on both sides of platform.

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

#### Control boxes **HIDRA** MODEL



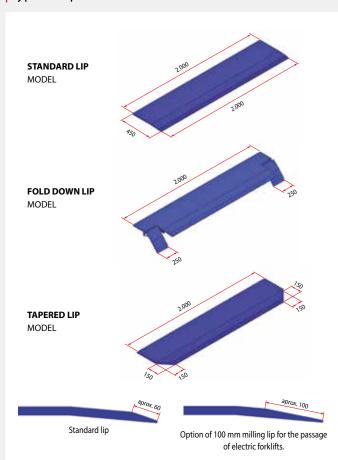
#### Control boxes **TELESCO** MODEL



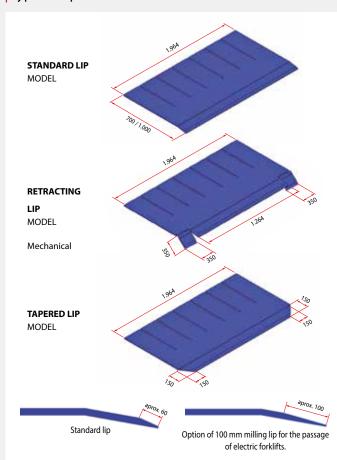
Model	Type of Ramp	Manned - open	Manned - return	Manned exit-enter chock	Automatic Return	Programmable	Door action	Impulsion door close	Overload protection	Phase inversion protection	Work temperature	Protection index	Accessory feed	Ramp feed from door	Interior traffic light	220V output / programmable
OV RS200L	HIDRA	Yes	Yes	No	No	No	Yes	No	Yes	No	de -10 +45	IP65	No	No	No	No
OV RS300K	HIDRA	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes	de -10 +45	IP65	Yes	Yes	Yes	Yes
OV RS300V	TELESCO	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	de -10 +45	IP65	Yes	Yes	Yes	Yes

Mixed Panels: Panel for sectional door and panel for ramp with the same characteristics

#### Types of lip for **HIDRA** dock leveler



# Types of lip for **TELESCO** dock leveler



ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

#### **HIDRA M** Model

This model is equipped with a central unit with hydraulic logic that allows the automatic control of all movements. 450 mm folding lip folded and bevelled for greater adjustment to the vehicle. Load capacity of 6 or 10 Tn.

#### **Optional:**

- 500 mm lip. (Ideal for containers).
- Load capacity of 10 tonnes, or other load capacities.
- Hydra ME model with static load capacity of up to 15 tonnes.
- Finished in hot-dip galvanized or mixed stainless steel (stainless-galvanized.)



\*PVC sealing joints on both sides of the platform.



Lip axles and hinges: electrolytic bichromate to prevent corrosion. Selfcleaning hinges (Axle Ø29 mm.)



Galvanized side plates for anti-trapping protection. Yellow-Black side stripes for signalling.



Locking bar for maintenance. Allows safe work under the plate.



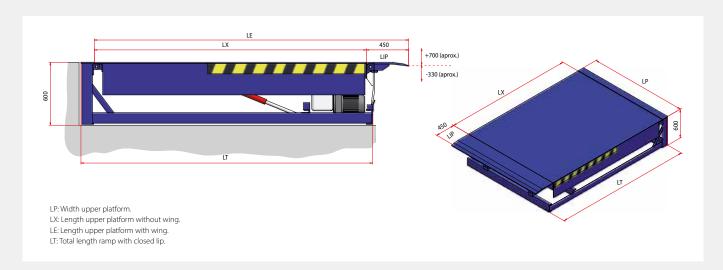
PVC sealing joint (optional).



The PVC joint can be cut into different sizes.

MODEL HIDRA 20.21 2.000 2.670 2.094 2.300 HIDRA 20.23 2.000 2.294 2.870 2.500 HIDRA 20.26 (STD) 2.000 2.594 3.170 2.800 **HIDRA 20.28** 2.794 3.370 2.000 3.000 HIDRA 20.31 2.000 3.094 3.670 3.300 HIDRA 20.33 2.000 3.294 3.870 3.500 HIDRA 20.36 2.000 3.594 4.170 3.800 **HIDRA 20.38** 2.000 3.794 4.370 4.000 HIDRA 20.41 2.000 4.094 4.670 4.300

The measurements for the HYDRA 225 ramps are the same as those in the table other than that the LP (platform width) is 2.250 mm instead of 2.000 mm.



Load 6 and 10 Tn

Load 6 Tn

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

# **HIDRA NR** Model

The new **Hidra NR** dock leveller has more standardized sizes since its manufacturing is automated. Consequently, it is a model much cheaper. Standard static load capacity up of 6 Tn.



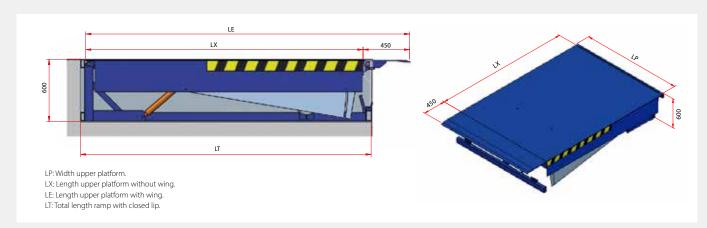
- · New 450mm extended lip for a better connection truck-dock leveler.
- · IPN profile beams to make sure the platform capacity.
- · Two cylinders to have a better stability.
- · Frontal hydraulic group for an easier and safer maintenance.
- · Self-cleaning hinges.
- · Polyester powder coated in High temperatures for a better protection.
- · Easier and faster assembly
- · Facilitates maintenance with the control unit front

MODEL	LP	LX	LE	LT
HIDRA N 18.20 *	1.840	2.060	2.560	2.190
HIDRA N 20.20	2.000	1.940	2.440	2.070
HIDRA N 20.21	2.000	2.180	2.680	2.310

MODEL	LP	LX	LE	LT
HIDRA N 20.23	2.000	2.380	2.880	2.510
HIDRA N 20.26	2.000	2.680	3.180	2.810
HIDRA N 20.28	2.000	2.880	3.380	3.010

<sup>\*</sup> **HIDRA N 18.20** height = 500 mm.

The measurements for the ramp HIDRA NR 225 are the same as those shown in the table except for the LP (width platform) which is 2.250 instead of 2.000.



#### Special finishes for refrigerated, food or chemical industries







ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

#### **TELESCO** Model

The Telesco dock leveller from **Angel Mir**° is the perfect bridge linking the warehouse and the loading vehicle. The telescopic lip system bridges the gap between the ramp and the truck floor, even if they are far apart. It allows the door to pass in front of the ramp, perfectly isolating the interior from the exterior, eliminating temperature leaks and energy costs. Consequently, it is most suitable in refrigerated warehouses or places where perfect sealing is required. The Telesco model has PVC sealing joints on both sides of the platform.

- The smooth movement in the inlet and outlet of the lip extends the life of these levellers.

Other important advantages of the telescopic system are:

- Avoid trapping accidents with the buffer extension accessory that allows a safety space of 500 mm between the truck and the leveller.
- It allows the possibility of regulating the outward movement of the lip without damaging the loads on the edge of the truck door.
- In installations where a hatch is required, it allows the door to be lowered to the outside floor by perfectly sealing the pit of the hatch.
- Thanks to its lip length, it allows lateral loading by placing the vehicle perpendicular to the leveller or the building.
- It is ideal for loading containers since the long length of the lip allows

the container to be reached, saving the overhang of the truck or elevated guide systems, such as the case of refrigerated fruit containers.

#### **Optional:**

- Stainless steel finish. Hot-dip galvanized or mixed steel (stainless steel-galvanized). See page 4.
- Completed in stainless steel. See page 4.
- Different sized lips. See page 5.



MODEL	, LP	LX	LE		LB	LT
			Lip 700	Lip 1.000		
TELESCO 20.21	2.000	2.250	3.000	-	1.900	2.300
TELESCO 20.23	2.000	2.450	3.200	3.500	2.100	2.500
TELESCO 20.26 (STD)	2.000	2.750	3.500	3.800	2.400	2.800
TELESCO 20.28	2.000	2.950	3.700	4.000	2.600	3.000
TELESCO 20.31	2.000	3.250	4.000	4.300	2.900	3.300
TELESCO 20.33	2.000	3.450	4.200	4.500	3.100	3.500

The measurements for the TELESCO 225 ramps are the same as those in the table other than that the LP (platform width) is 2.250 mm instead of 2.000 mm.

#### INSTALLATION OPTIONS OF THE TELESCOPIC SYSTEM



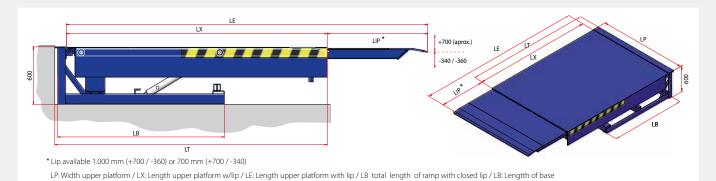
**Telesco** ramp covered by the sectional door for refrigerated warehouses.



**Telesco** ramp covered by the sectional door for refrigerated warehouses. With a hatch.



**Telesco** ramp in a standard non-refrigerated installation.



ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

# **NEW**

#### **KA-HIDRA** Model

Vertical hydraulic loading bridge that saves the incline between the vehicle and the warehouse being enabling the opening of the vehicle doors inside the building. The procedure of fastening to the building by means of steel frame fixed at the pit makes easier the assembly and maintenance tasks, so it has a lower cost and involves less civil work. Movement range of more than  $90^{\circ}$  and allowed transversal incline  $\pm 100$  mm. The vertical rest position allows closing the dock door from the front, ideal for refrigerated facilities.

It can be combined with a sectional or rolling door, an inflatable shelter, a chock, bumpers and versalight spotlight. Platform with non-slip studded steel sheet and epoxy resin finish in polyester blue RAL 5010. Greater resistance to wear.

It incorporates safety and control systems for easy handling and risk-free functionality.

#### **Options:**

- Hot-dip galvanized steel.

#### Load capacity: 6 Tn







KA-HIDRA model 20.08 installed outside.

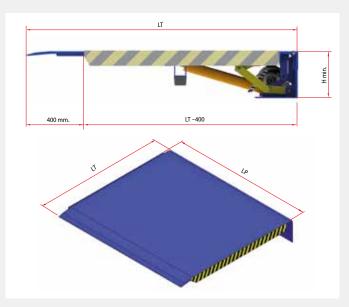








MODEL	WIDTH SHEET LP	TOTAL LENGTH LT	HEIGHT H
KA-HIDRA 20.08	2.000	800	310
KA-HIDRA 20.12	2.000	1.200	310
KA-HIDRA 20.15	2.000	1.500	310
KA-HIDRA 20.18 (STD)	2.000	1.800	310



ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

#### **TELESCO VAN** Model Levelling ramp for vans

The **Telesco VAN** dock leveller from **Angel Mir**° allows the loading and unloading from different types of vehicles, whether they are heavy-duty trucks or delivery vans. Thanks to its telescopic lip system, it bridges the gap between the ramp and the vehicle floor, even if the two are far apart.

The selector installed on the control panel allows you to select the appropriate mode for the lip. For vans with a narrower body, the effective lip width is reduced to 1200 mm. The capacity of the leveller is 20 kN and the dead weight is limited to 2 kN.

When used for loading trucks, the lip width changes to 1950 mm and the ramp capacity is 60 kN. During the loading and unloading manoeuvre the leveller automatically adapts to the different heights.

The Telesco Van model is manufactured in steel with a painted RAL 5010 blue finish and is supplied together with a metal fixing frame, constituting a complete set that is installed in one single step. Suitable frames for this ramp are a suspended frame (embedded in concrete) or a welded frame (corner frame at the edges of the pit).

It is essential to choose the appropriate length to adapt the slope to the maintenance vehicles proposed to be used.

**Standard Telescopic Lip:** with 6° fold. It can be used when the truck platform is above of the dock.

**Straight lip option:** no fold. Used when the loading platform is level or below level. With the long bevel, it improves the ergonomics for the passage of small and hard wheeled vehicles.

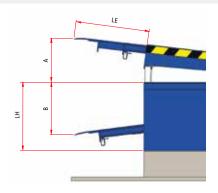
MODEL	WIDTH NW (mm)	LENGTH NL (mm)
Telesco VAN R 20.28	2.000	3.000
Telesco VAN R 20.33	2.000	3.500
Telesco VAN R 20.38	2.000	4.000
Telesco VAN R 20.43	2.000	4.500



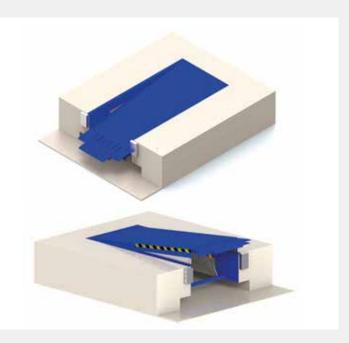
Long bevel: 100 mm. Only on straight lips.







NL	LH	LE	Α	В
3.000	800		550	620
3.500	900	1 000	580	640
4.000	950	1.000	615	710
4.500	950		595	720



ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

# ISOPERFECT, the perfect solution for loading bays on freezing and cold industries

The innovative system allows the opening of the truck doors inside the refrigerated building, avoiding temperature loss and contamination (dust, fumes, insects, etc.), as well as danger for the driver.



Opening truck doors inside the building.

#### **Advantages**

#### 1. Energy savings

Thanks to the thermal sealing of the dock and that the doors open inside the industrial unit, a considerable improvement regarding the energy consumption and the conservation of the environment is achieved.

#### 2. Food hygiene and security

It guarantees greater control of the cold chain and prevents external agents to enter, since the opening of the dock door and

the truck one is completed when the inflatable shelter is already sealed to the entire vehicle.

#### 3. Organization

It obliges the operators to follow some rules and routines that ensure compliance with the procedure, therefore minimizing mistakes or avoiding tasks to be duplicated.

#### 4. Time reduction

It is possible to carry out less manoeuvres with the truck than with a conventional system and the driver does not have to leave the vehicle to open the doors.

#### 5. Safety for the staff

To install a safety wedge can prevent the truck from moving and the forklift from falling.

#### **ISOPERFECT System is composed of:**

- Telescopic levelling ramp (standard model) or Vertical automatic loading bridge KA hidra (ECO model)
- 2. Roller shutter door
- 3. Inflatable dock shelter AH ISO
- 4. Dock shelter AH 4 Bags (Plus model)
- 5. Security chocks
- 6. Restrain truck doors
- 7. Dock lamp Versalight
- 8. Protection posts
- 9. A single control panel for all the loading bay equipment

ISOPERFECT is the appropriate System to fulfil international food Certification.













ISOPERFECT SYSTEM

DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

# Operating sequence of ISOPERFECT with telescopic dock leveller



 The external traffic light on green indicates that the dock is ready for its use, so the truck approaches the dock with no need of opening the back doors.



Once the truck is placed, the driver must chock the wheel of the truck to allow the inflatable shelter to seal it.



3. When the truck is sealed by the inflatable shelter, the door is automatically opened and the Versalight turned on.



The operator must push down the bumpers.



**5.** The operator opens the back doors of the truck.



**6.** The operator locates the lip of the telescopic dock leveler over the truck.



7. Everything is ready and safe for the loading/unloading process of the



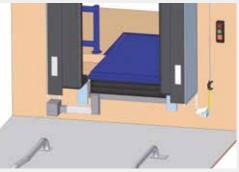
**8.** Everything is ready and safe for the loading/unloading process of the

# **NEW**

# **ISOPERFECT Plus** with the new sealing cushion **AH 4BAGS**

Isoperfect Plus includes AH 4BAGS at below; the new inflatable dock shelter seals completely all around the truck with high insulation. 4Bags are inflated once the ramp is placed on the truck and it is designed to operate with the Isoperfect panel.





# **NEW**

# **ISOPERFECT ECO** with vertical loading bridge KA-HIDRA

The **Isoperfect ECO** system stands up because it has an automatic vertical KA Hidra loading bridge instead of the telescopic ramp, which makes it a cheaper system requiring less civil work. This feature does not affect the efficiency of the whole since the doors of the truck also open inside the building achieving a significant energy saving. The loading bridge can have a fixed lip or a telescopic lip to better adjust the distance between the loading bridge and the truck. Adjustment up to 500 mm.



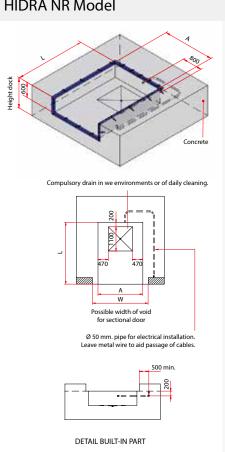


ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

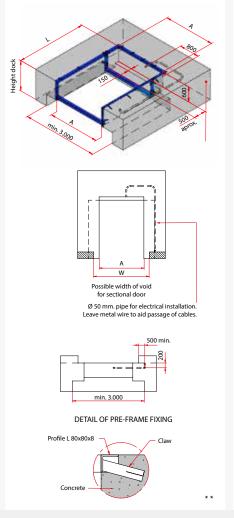
LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

# PIT SYSTEMS AND PRE-FRAMES TYPES ACCORDING TO EACH MODEL OR APPLICATION

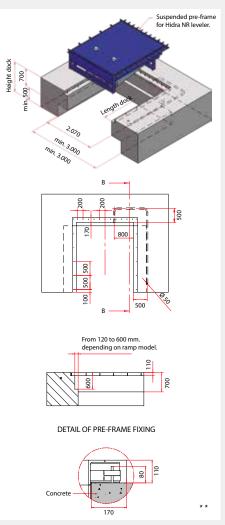
# **Pre-frame Type L** without hatch HIDRA NR Model



#### | Pre-frame Type L with hatch HIDRA NR Model



# **Suspended frame** with hatch HIDRA NR Model



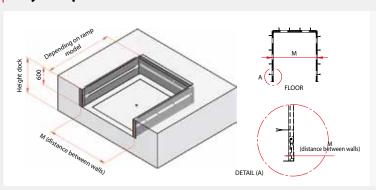
MODEL	WIDTH A	LENGTH L
Hidra NR 18.20	1.880	2.190°
Hidra NR 20.21	2.040	2.310
Hidra NR 20.23	2.040	2.510
Hidra NR 20.26	2.040	2.810
Hidra NR 20.28	2.040	3.010

- \* The height of the pit model 18.20 is of 500 mm. For the other models is of 600 mm.
- <sup>o</sup>The measurements for the ramp HIDRA NR 225.XX are the same as those shown in the table except for the A (width of trench) which is 2.290 instead of 2.040.
- \*\* Optional:
- -The base of the ramp can be closed with a panel.
- -The void of the trapdoor can be closed with flexible PVC.

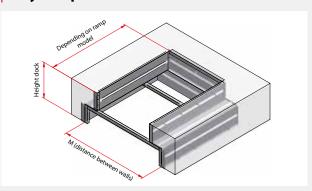
#### **Engine SPECIAL ELECTRICAL FEATURES**

Power: 1.5 cv / Current: 380v. Three-phase + neutral + earth Consumption: 3A / Protection: IP55

#### Easy Ramp Pre-frame without hatch. Box



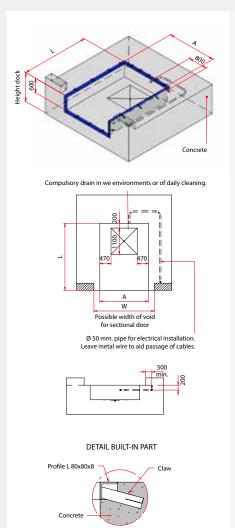
# Easy Ramp HIDRA N Pre-frame with hatch



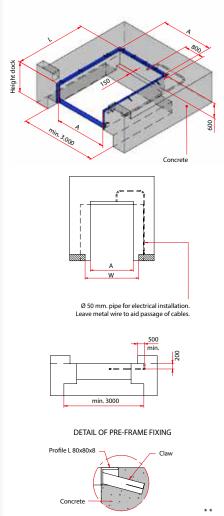
ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

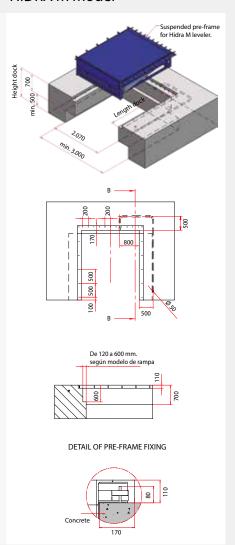
# **Pre-frame Type L** without hatch HIDRA M Model



#### | Pre-frame Type L with hatch HIDRA M Model



#### Pre-frame Type L with hatch HIDRA M Model



MODEL	WIDTH A	LENGTH L
Hidra M 20.21	2.040	2.310
Hidra M 20.23	2.040	2.510
Hidra M 20.26	2.040	2.810
Hidra M 20.28	2.040	3.010
Hidra M 20.31	2.040	3.310

<sup>&</sup>lt;sup>o</sup>The measurements for the ramp HIDRA 225.XX are the same as those shown in the table except for the A (width of trench) which is 2.290 instead of 2.040.

#### \*\* Optional:

- The base of the ramp can be closed with a panel.
- The void of the trapdoor can be closed with flexible PVC.

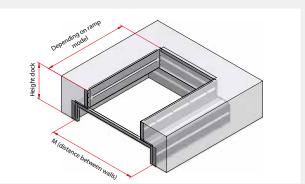
#### **Engine SPECIAL ELECTRICAL FEATURES**

Power: 1.5 cv / Current: 380v. Three-phase + neutral + earth Consumption: 3A / Protection: IP55

# Easy Ramp Pre-frame without hatch

# Determination from Males Detail (A) Detail (A) Detail (A) Detail (A) Detail (A)

# Easy Ramp HIDRA M Pre-frame with hatch



**DOCK DOORS** 

DOCK **SHELTERS** 

**SAFETY SYSTEMS** 

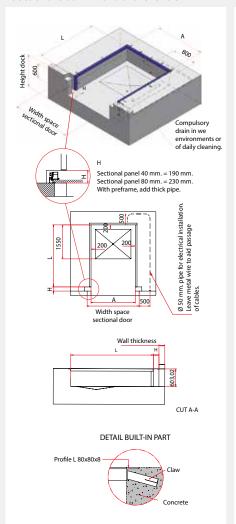
**OTHER SOLUTIONS FOR LOADING BAY** 

**LIFTING TABLES** 

**EXAMPLES OF** COMPLETED **PROJECTS** 

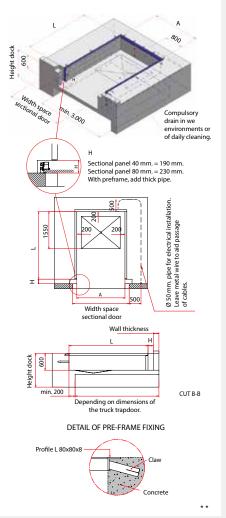
#### **Pre-frame Type L** without hatch | **Pre-frame Type L** with hatch **TELESCO Model**

Sectional door in front of the leveler



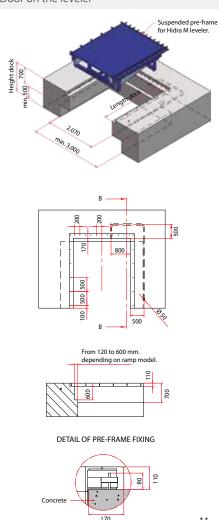
# **TELESCO Model**

Sectional door in front of the leveler



#### Suspended frame with hatch **TELESCO Model**

Door on the leveler



MODEL	WIDTH A	LENGTH L
Telesco 20.21	2.040	2.310°
Telesco 20.23	2.040	2.510
Telesco 20.26	2.040	2.810
Telesco 20.28	2.040	3.010
Telesco 20.31	2.040	3.310
Telesco 20.33	2.040	3.510

- \* Lip 700 mm. For the rest of sizes, lip 700 mm or 1.000 mm
- ° The measurements for the ramp TELESCO 225.XX are the same as those shown in the table except for the A (width of trench) which is 2.290 instead of 2.040.

# \* \* Optional:

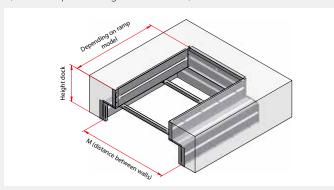
- The base of the ramp can be closed with a panel.
- The void of the trapdoor can be closed with flexible PVC.

#### **Engine SPECIAL ELECTRICAL FEATURES**

Power: 1.5 cv / Current: 380v. Three-phase + neutral + earth Consumption: 3A / Protection: IP55

# Easy Ramp TELESCO Pre-frame with hatch

(Non-valid pit for refrigerated facilities)



MODEL	LENGTH M without hatch	WIDTH N with hatch
Easy Ramp 20.21	2.180	3.130
Easy Ramp 20.23	2.180	3.130
Easy Ramp 20.26	2.180	3.130
Easy Ramp 20.28	2.180	3.130
Easy Ramp 20.31	2.180	3.130
Easy Ramp 225.21	2.430	3.430
Easy Ramp 225.23	2.430	3.430
Easy Ramp 225.26	2.430	3.430
Easy Ramp 225.28	2.430	3.430
Easy Ramp 225.31	2.430	3.430

**ISOPERFECT SYSTEM** 

**DOCK DOORS** 

DOCK **SHELTERS** 

**SAFETY SYSTEMS** 

**OTHER** SOLUTIONS FOR **LOADING BAY** 

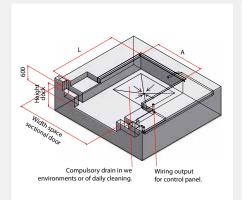
LIFTING **TABLES** 

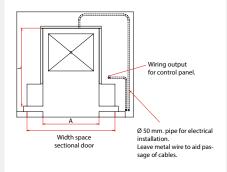
**EXAMPLES OF** COMPLETED **PROJECTS** 

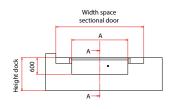
# TELESCO Sist. Isoperfect Model

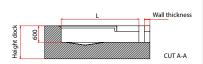
# **Pre-frame Type L** without hatch | **Pre-frame Type L** with hatch **TELESCO Sist. Isoperfect Model**

# Pre-frame without hatch **KA-HIDRA Model**

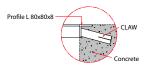




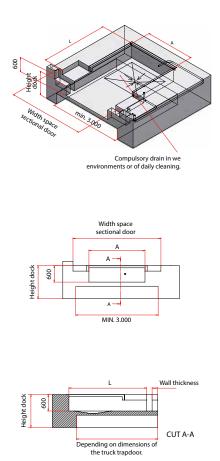


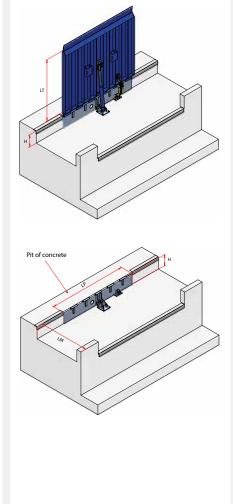


DETAIL OF PRE-FRAME FIXING



MODEL	WIDTH A	LENGTH L
Telesco 20.23	2.040	2.510
Telesco 20.26	2.040	2.810
Telesco 20.28	2.040	3.010
Telesco 20.31	2.040	3.310
Telesco 20.33	2.040	3.510





MODEL	WIDTH MIN	LENGTH MAX.	DEPTH H
KA-HIDRA 20.12	2.040	832	310
KA-HIDRA 20.15	2.040	1.132	310
KA-HIDRA 20.18	2.040	1.432	310

 $^{\circ}$  The measurements for the ramp TELESCO 225.XX are the same as those shown in the table except for the A (width of trench) which is 2.290 instead of 2.040.

#### **ELECTRICAL FEATURES**

Engine

Power: 1.5 cv

Current: 380v. Three-phase + neutral + earth

Consumption: 3A Protection: IP55

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

# **BASE FRAMES FOR LOAIDNG DOCKS**

The loading house **BOX B2** can be used as a dock leveller without needing any building work. This system allows to make the most of the interior space of the warehouse. It is also a good solution to minimize the temperatures losses when a speed door and a sectional door are combined.

The sandwich panel cover, consisting of two side walls and a roof, can be supplied with or without support and it is supplied ready to receive a shelter at the front. This box is applicable for base frames of loading dock type B-2.

The model **BOX B2 Isoperfect System** is different because it includes a 220 mm drawer in the base frame allowing the doors of the vehicle to open inside the box, and thus achieving a much higher insulation and a stable temperature.

#### **BOX B2 ECO** Model with dock box



#### **BOX B2 Isoperfect System** Model





Dock BOX B2.



Loading house **BOX B2** with Mirtherm door and inflatable shelter.



**BOX B2** dock construction with 45° incline to the industrial unit.



Loading houses **BOX B2 ECO** at loading warehouse.



**BOX B2** docks with shelter sides in different colour.



Set of loading houses **BOX B2** with bumpers and truck guides.

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

# **BASE FRAMES FOR LOADING DOCKS**

The base frames for loading dock are custom made for each customer to guarantee the best adaptation to the installation. It is a perfect structure to expand the loading points without civil works.

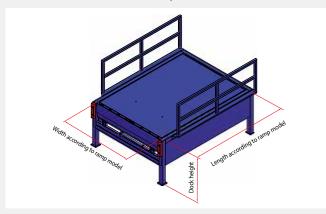
\* Request information about other base frames models.

#### **Options:**

- One or two side walkways.
- Access stairs.
- Rust proof treatment.
- Colour Ral 5010 (blue).
- Covered option with walls and ceiling.
- Different slopes: 45°, 90° etc.
- Custom sizes.

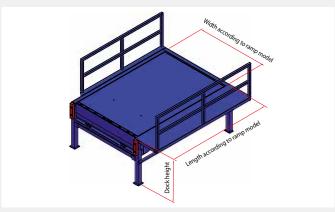
#### **BO** Model

Without hatch and with handrails (optional handrails).



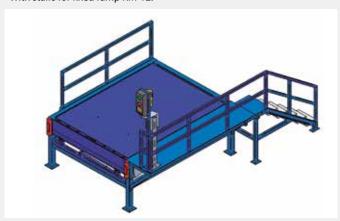
#### **B1** Model (with one walkway)

Without hatch and with handrails (optional hatch).



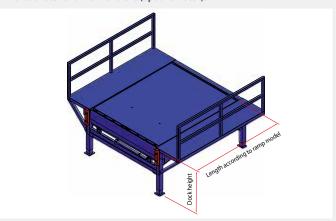
#### **B1** Model (with one walkway)

With stairs for fixed ramp RM-12.



# **B2** Model (with two walkways)

Without hatch and with handrails (optional hatch).



#### **B2** Model (with two walkways)

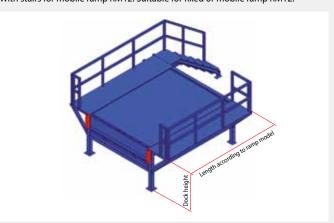
With stairs for mobile ramp RM12. Suitable for fixed or mobile ramp RM12.



**B0** model without side walkways but with handrails.



**B2** model with walkway and



ISOPERFECT SYSTEM DOCK DOORS

DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

#### LOADING BAY DOORS (SECTIONAL OR ROLLER SHUTTERS)

**Angel Mir**\* loading bays are the result of the three different types of equipment.

- **Dock leveller:** overcomes the problems of uneven ground and gap between dock and vehicle.
- Dock shelter: insulates and protects from weather conditions during loading and unloading.
- Dock door: seals and insulates thermally.

Eco Dock sectional doors and Mirtherm roller shutter doors are made in the same sizes and colours. **Both are available with a mixed control box.** 

for standard measurements:							
Orientative measurements for door spaces (in mm.)							
	WIDTH HEIGHT						
HIDRA	<b>HIDRA</b> 2.800 3.000						
HIDRA	HIDRA 3.000 3.000						
TELESCO	TELESCO 3.000 3.600 (sectional door ahead ramp)						
<b>TELESCO (Isoperfect)</b> 3.200 4.000 (sectional door ahead ramp)							
<b>TELESCO (Isoperfect)</b> 3.200 4.600 (sectional door ahead ramp and to the ground)							

Consult our special rates

1011112101	3.000	3.000
	WIDTH	HEIGHT
Shelter AC	2.100	2.200
Adjustable AC Shelter	2.300	2.600

3.800

3 000

#### **ECO DOCK SECTIONAL DOORS**

The sectional doors, manufactured in sandwich panels, guarantee perfect sealing with airtight joints which, also have insulation properties and can be made depending on the height of the lintel. The door can be operated manually or automatically. Different elevation types are available depending on the building features.

#### **Options:**

- Metalwork and guides in stainless steel.
- Up to 80 mm thick panels for refrigerated installations.
- $\hbox{-} Fiberglass panels for corrosive environments.}\\$
- Impact protective panels.

KA-HIDRA

- Peepholes.
- Safety switch for stopping the ramp in manual mode.



Eco dock sectional doors in loading bay. High elevation model.

RAL colours for sectional doors (Inside colour white)	<b>9010</b> White	<b>9002</b> White	<b>9006</b> grey	<b>9007</b> Grey	<b>7016</b> Grey	<b>5010</b> Blue	<b>3000</b> Red
STANDARD LACQUERS							
MICRO		_	O	0	О	О	o
FLAT LINE	-	0	O	_	0	_	_

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS





Eco dock door with glass panels.

Inside view of **Eco dock doors** with glass panels.

#### **INSULATED ROLLER SHUTTER MIRTHERM IST**

**Mirtherm IST** is roller shutter insulating door perfect for limited holes. Designed for intensive use. The blades of the door are insulated with polyurethane and the guides with sliding profiles and improved sealing.

It operates very quietly thanks to the materials used in the places where there is friction against the guides allows the blade to move very smoothly between them. Also, it is virtually maintenance-free and has a long service life thanks to it has no elements liable to frequent wear, such as cables or springs.

#### **Options:**

- Peepholes.
- Motor cover.
- Reinforced guides 135 mm model.



Refrigerated loading bay with Mirthem doors.



Mirtherm door with peepholes.



Mirtherm door with motor cover.

RAL colours for roller shutter doors (Inside colour white)

STANDARD LACQUERS

**9002** White

**9006** Grey **7016** Grey **5010** Blue **3000** Red

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

# **DOCK SHELTERS**

The flexible shelters from **Angel Mir** are the indispensable supplement to any loading dock and in some sectors (food, meat, etc.) they are compulsory. They prevent the entry of air, water and gases, protecting both the operators who perform the loading, and the goods themselves, providing great energy savings by eliminating air currents that prevent proper air

conditioning. They have been designed to fit regular transport vehicles: their segmental curtains are adapted to the bodywork. The different models of shelters can be adapted to different environments, vehicles, goods and types of storage. Its robust construction allows it to be resistant to the impacts and wear common to this type of installation.

**AB** Model (Retractable) and **AB-ALU** Model Folded with slight vertical movement.



**ASS** Model (Adjustable foam) Soft side shelter for loading dock.



AH ISO Model (Inflatable)

With insulated sides.



AH ECO Model (Inflatable)



**AC Regulable** Model (Foamed) Best seal for refrigerated installations.



**4 BAGS** Model (Inflatable) To seal the leveller at the bottom.



**ACH** Model (Vans)
Flexible shelter with an inflatable head.



**ISOPERFECT SYSTEM** 

DOCK **DOORS** 

**DOCK SHELTERS** 

**SAFETY** SYSTEMS

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**EXAMPLES OF** COMPLETED **PROJECTS** 

#### **AB RETRACTABLE** Model

The external enclosures are **retractable** to absorb possible shocks. The side and top curtains are made of a semi-rigid, high-tenacity material consisting of a double polyester fabric impregnated with black PVC. The thickness of this fabric is 2.7 mm. It is extremely resistant to humidity, abrasion and the ageing caused by solar radiation. The internal chassis and structural elements are made of galvanized steel, with a higher mechanical resistance than other lighter materials. The external, non-structural profiles are made of aluminium to offer greater resistance to oxidation. The vertical displacement folding system absorbs the vertical movements produced in the vehicle during the loading and unloading operation. Easy assembly in existing installations. Optionally, a curtain for fumes can be included.

#### **Options**

- Screen-printed numbers.
- Upper front of 1.500 mm.
- Sealing pads on both sides.\*\*
- Special coloured or translucent side canvas.
- Front canvas covered with coloured fabric.

MODEL	Н
AB 34	3.410
AB 36	3.610
AB 43	4.300

А
1.000 (standard)
1.500 (optional)

Standard width 3.400 mm

ABF version with the same dimensions as model AB with fixed sides. With this model the installation of truck guides is mandatory.

WARNING: check the total height of the shelter according to the type of vehicle.



AB Model.



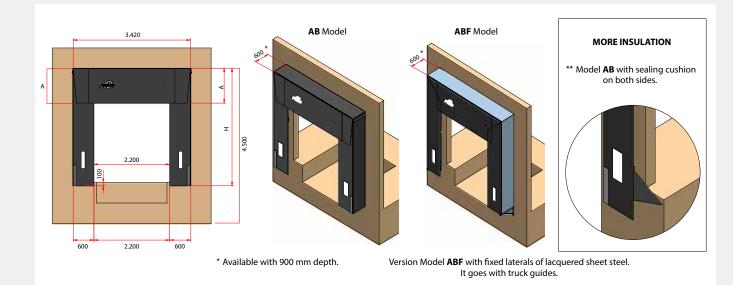
Model AB with 1.500 mm upper curtain.



Loading and unloading without a special colour. dock leveller.



Model AB (down to the ground). AB shelters with optional side canvas in



ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

#### **AB - ALU** Model

**AB-ALU retractable shelter** with full structure in anodized aluminium profiles expressly built for this model. The profiles are structural and have been designed with the necessary reinforcements to achieve the same resistance as with steel profiles, with the following added advantages: resistance to oxidation, channels for housing accessories, structural reinforcements and easy replacement of elements if necessary.

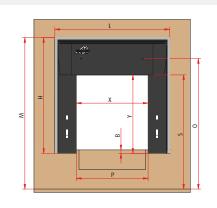
The curtains are made of a reinforced polyamide fabric covered with a thick layer of black PVC. This type of fabric resists the stresses generated in daily use (blows with the truck, water jet cleaning, gusts of wind, etc.) and the friction to which it is subjected by the movements of the vehicle during loading.

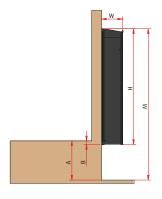
To prevent the accumulation of water on the roof, the design includes a forward slope and a channel profile, also made of aluminium, with which to drain the water off to the sides. At the back it has inserted rubber profiles that improve the tightness on the front, and help to prevent water leaks.

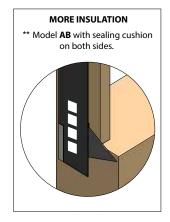


MODEL CURTAIN	AB-ALU 35 1.000	AB-ALU 35 1.500	AB-ALU 37 1.000	AB-ALU 37 1.500
н	3.550	3.550	3.750	3.750
L	3.520	3.520	3.520	3.520
W	650	650	650	650
Z	650	650	650	650
M	4.645	4.645	4.845	4.845
Y	2.410	1.910	2.610	2.110
Х	2.200	2.200	2.200	2.200
P	2.200	2.200	2.200	2.200
0	4.000	4.000	4.200	4.200
S	3.500	3.000	3.700	3.200
Α	1.200	1.200	1.200	1.200
В	110	110	110	110

Reference measurements with loading dock 1,200 mm above the ground and a shelter mounted 110 mm below the load level.







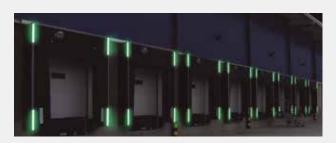
WARNING: check the total height of the shelter according to the type of vehicle.

#### **Signal Shelter**

Optionally, they can incorporate the new patented system of smart shelters with LED lighting to facilitate the manoeuvring of vehicles in the loading dock at night or in adverse weather conditions and poor visibility.

It consists of a series of linear LEDs integrated into the perimeter profiles, and can be used for various signalling, guidance and lighting functions. These, connected to the loading dock management system, can provide status information such as whether the dock is free or already reserved for loading. By adapting the necessary sensors, you can provide the driver with information on the distance to the final stop, as well as information on whether the final stop has been reached. They can be backlit (in variable colours) to highlight the building façade or to identify the loading area.





ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

# Adjustable foam **ASS** Model

#### **ALMOST INDESTRUCTIBLE!**

Specially designed for high traffic docks and difficult accessibility.

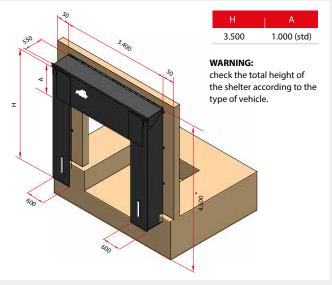
**NEW** loading dock shelter with flexible laterals. No metal supports or arms or hinges. **Flexible foam** sides lined PVC fabric of 100 mm. thick. Side curtains of 600 mm. wide. Interior clamps on both sides. Head autotuning system that absorbes the vertical elevations of high vehicles.











\* Approximate dimensions which might vary depending on the type of vehicle and the height of the dock.

# Option ASS / AB Model WITH MANUAL CURTAIN for small cargo vehicles





**ISOPERFECT** SYSTEM

DOCK **DOORS** 

DOCK **SHELTERS** 

**SAFETY SYSTEMS** 

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#### **AC Adjustable Foam Model**

The AC Adjustable shelter from Angel Mir® represents a very good solution for a loading point with isothermal requirements and where vehicles of different heights work thanks to its design that allows the upper crossbeam to go up and down by means of a motorized system allowing its fixing at the necessary height for each vehicle (trucks, vans, etc.).

It prevents the exchange of environments, the entry of air, water or gases and maintains a good seal between the doorway and the vehicle.

The AC Adjustable shelter is designed and built with PVC sheets reinforced with polyester fabric in order to resist the wear and tear produced during the normal operation of the logistic loading dock.



#### Adjustable AC Model

#### Standard measures

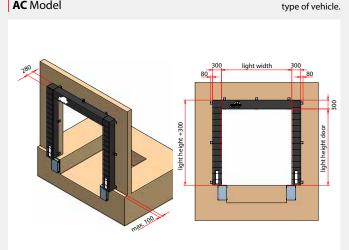
WARNING:

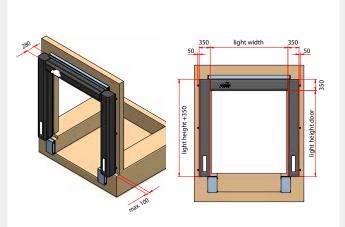
check the total height of

the shelter according to the

- Depth: 280 mm.
- Width side cushions: 300 mm.
- Height upper cushion: 300 mm.
- Adaptability upper cushion: approx. 1.200 mm.
- Colour: black.

#### **AC** Model





# **AC Fixed Foam** Model

Formed by foam pads covered with PVC canvas. Front reinforced with PVC canvas sheets. Lateral valves for the evacuation of the compressed air. Special for places that need a high level of tightness.

Available in an AC ECO version with the same features as the AC Model. The upper pad is replaced with PVC canvas.





Fixed foam dock shelter with optional front curtain.

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

#### AH ISO ALU Inflatable Model

The shelter is the indispensable element for achieving better tightness in the sealing of a loading dock.

In general, conventional shelters make it difficult for outside air to enter, but sometimes the seal is not perfect due to the irregularities of the surface of the vehicles. The inflatable shelter improves watertightness because the seals that rest on the vehicle are flexible bags made of extremely resistant textile material, and are inflated by high-performance fans that maintain pressure throughout the loading and unloading manoeuvres.

The flexibility of the material allows it to adapt to the shapes and irregularities of the bodywork. The inflatable bags have been designed to fill, as much as possible, the gaps that form between the vehicle and the loading point, and to adapt to the widths and heights of the different vehicles. In the lower part, the side bags extend to the wall, blocking the lower passage of air.

The sealing of the passage of air is much better than in other systems and, in addition, thanks to the air chambers that form the bags and the insulating material with which they are made, they minimize temperature leaks inside the work space. They are perfect for loading docks in controlled environment warehouses where it is necessary to maintain a constant temperature and minimum contact with the outside environment to avoid contamination of the product, or in places where good protection against the entry of dust, insects, gases etc., is necessary. In the event of rain, the upper bag, when pressed against the truck roof, prevents water from entering the interior of the dock.

The structure of the AH ISO ALU models is made of anodized aluminium profiles specially designed to achieve the same resistance as steel profiles, and with the added advantages of resistance to oxidation, channels for housing panels and accessories, structural reinforcements and the easy replacement of elements if necessary. The sandwich panels on the sides

and roof guarantee better insulation and protection of the bags, which are made of Cordura® polyamide yarn fabric, an ultra-moisture resistant and abrasion-resistant material commonly used in high-performance military and sports clothing and accessories.

The modular construction system facilitates assembly and maintenance. To prevent possible impacts caused by deviant vehicles, the use of truck guides is mandatory. On the other hand, to achieve a perfect operating sequence and longer durability, it is advisable to use a truck wheel chock with automatic signalling, drive and disconnection of the shelter.



AH ISO ivory colour model (upper extended sealing cushion: 1.700).

MODEL CURTAIN	AH-ISO 36/37 1.050	AH-ISO 36/37 1.700	AH-ISO 36/40 1.050	AH-ISO 36/40 1.700
н	4.260	4.260	4.560	4.560
L	3.610	3.610	3.610	3.610
W	1.060	1.060	1.060	1.060
Z	1.210	1.210	1.210	1.210
М	4.760	4.760	5.060	5.060
Υ	2.700	2.050	3.000	2.350
Х	1.900	1.900	1.900	1.900
P	2.760	2.760	2.760	2.760
0	4.160	4.160	4.460	4.460
S	3.700	3.050	4.000	3.350
Α	1.200	1.200	1.200	1.200
В	200	200	200	200

Reference measurements with loading dock 1,200 mm above the ground and a shelter mounted 200 mm below the load level.

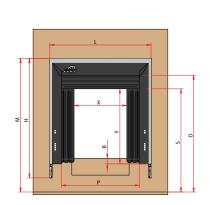


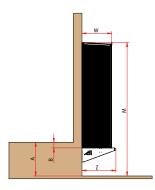
Option: additional removable reinforcement with Velcro system.

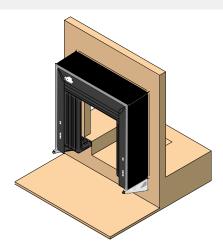




Detail of bottom sealing cushion.







**WARNING:** check the total height of the shelter according to the type of vehicle.

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

# **Signal Shelter**

Optionally, they can incorporate the new patented system of smart shelters with LED lighting to facilitate the manoeuvring of vehicles in the loading dock at night or in adverse weather conditions and poor visibility.

It consists of a series of linear LEDs integrated into the perimeter profiles, and can be used for various signalling, guidance and lighting functions. These, connected to the loading dock management system, can provide status information such as whether the dock is free or already reserved for loading. By adapting the necessary sensors, you can provide the driver with information on the distance to the final stop, as well as information on whether the final stop has been reached. They can be backlit (in variable colours) to highlight the building façade or to identify the loading area.











#### Inflatable AH ECO Model

Shelter **AH ECO** has the same features as model ISO. It is a shelter with inflatable cushions but without the side insulation panels. Available in black or ivory cordura depending on the location of the work. For those docks that are exposed to the sun for many hours, the use of ivory colour is recommended.





Detail of the lower seal.



Check total height of assembling of dock shelter according to vehicle types.

Ability to regulate the height depending on the truck size.

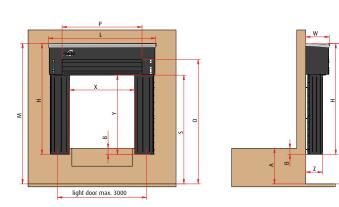




Option of removable additional reinforcement with velcro system.

MODEL CURTAIN	AH-ECO 36/37 1.050	AH-ECO 36/37 1.700	AH-ECO 36/40 1.050	AH-ECO 36/40 1.700
н	3.745	3.745	4.045	4.045
L	3.625	3.625	3.625	3.625
W	800	800	800	800
Z	570	570	570	570
М	4.745	4.745	5.045	5.045
Y	2.700	2.050	3.000	2.350
Х	2.200	2.200	2.200	2.200
Р	2.700	2.700	2.700	2.700
0	4.200	4.200	4.500	4.500
S	3.700	3.050	4.000	3.350
Α	1.200	1.200	1.200	1.200
В	200	200	200	200

Reference measurements with loading dock **1,200** mm above the ground and a shelter mounted **200** mm below the load level.



**WARNING:** check the total height of the shelter according to the type of vehicle.

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

# **NEW**

# **ACH** Model For vans

The **ACH flexible dock shelter** is manufactured with an inflatable head to adapt to the different heights of transport vehicles such as vans or delivery trucks. It allows the vehicle to be attached to the dock without problems and the loading or unloading of the goods can take place inside the facilities. This makes it ideal for loading docks of e-commerce logistics platforms or parcel distribution centres.

The structure is in anodized aluminium profiles, incorporates hidden sealing joints, and has a new front lighting system around the whole contour of the shelter.

#### **Options:**

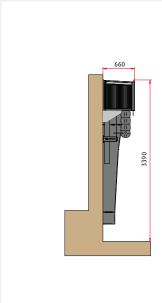
- It can be fitted with double-lip sealing joints all around the side of the wall.
- Signposting.
- Backlight on the side of the wall.
- Interior lighting on the loading door.
- It can be equipped with the new **Signal Shelter LED** lighting system (see page 27).

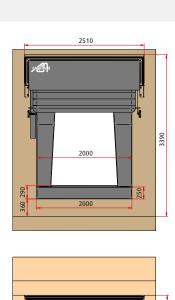




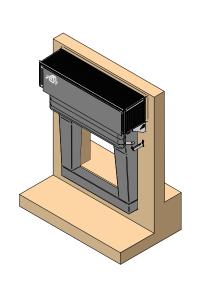
Detail of the inflatable and height-adjustable upper curtain of the vehicle.

#### **ACH** Model





2500



ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

# **NEW**

# AH 4BAGS Inflatable model for Isoperfect Plus

Isoperfect Plus includes AH 4BAGS at below; the new inflatable dock shelter seals completely all around the truck with high insulation. It also represents a significant reduction in energy costs and greatly saving energy costs.







Detail of fourth shelter at below of telescopic ramp Isoperfect.



# **ACCESSORIES TO IMPROVE THE THERMAL INSULATION**



PVC tail for hatch



| Sealing cushion for AB or ASS shelters

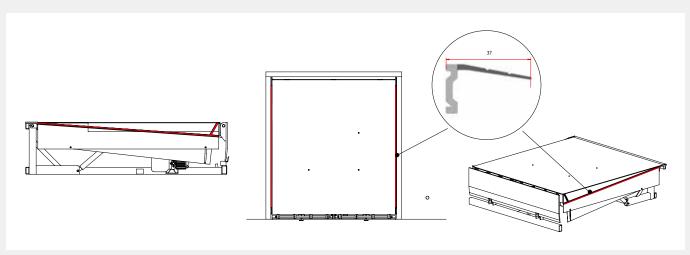


PVC air seals for Hidra dock leveller.

L length profiles are supplied for facilities of docks belonging to other manufacturers.

PVC rubber profiles for the sealing of the leveller ramp side.

L= 3 m./ud Colour: black



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# **TUNNEL AND EXTENDABLE SHELTERS**

The **extendable shelters** are front structures that cover doors or facades protruding outwards. Ideal for loading points at ground level and having reduced space for manoeuvres. Option of model with rotating extendable shelter at 90° for loads in parallel to the building. The **extendable loading tunnels** are designed to cover spaces between industrial units or loading areas. They are flexible and can be folded or permanent depending on each case.



Extendable tunnel.



Extensible shelter in loading bay.



Bendable dock shelter.



Extendable shelter.



Automatic extensible shelters in container inspection warehouse.



Extensible shelter in loading dock.



Extendable tunnel as warehouse.



Temporary storage tent with complete loading dock.

#### **LOADING BAY EQUIPMENT**

DOCK LEVELLERS ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

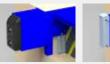
LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

#### **BUMPERS**

The bumpers prevent the truck from colliding with the levelling ramp and keep the distance between the truck and the ramp, guaranteeing the correct functioning of the levelling ramp in the loading and unloading process.



Shelter zone for the TC 450, TM 500,150 and TM 500,300 stoppers. It guarantees 0.50 m of safety space for dock workers.







#### **PROTECTION POSTS**

Ideal for protection from impact with door, drain pipes, machinery etc.



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# WHEEL GUIDES FOR TRUCKS

The truck guides allow the driver to conveniently position the truck against the dock, thus avoiding damage to the shelters, docks or other facilities due to an incorrect truck approach.

#### **GH-3000** Model (CONCRETE)

Straight.

Fastening by means of rods built into the pavement.

**Length:** 3.000 mm. **Weight:** 450 Kg/u.

\* It is recommended to paint the guides in yellow and black.

Painting is not supplied.





# G-25 Model (STEEL)

With off-centre angle.

To embed or screw to the ground.

Length: 2.500 mm.

**Options:** Steel galvanized (STD), steel painted yellow, steel painted yellow and black.



Steel painted yellow and black.



Steel painted yellow.



Steel galvanized.

# G-15 Model (STEEL)

Straight.

To embed or screw to the ground.

Length: 1.500 mm.

Options: Steel galvanized (STD),

steel painted yellow.





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LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

# SAFETY CHOCKS TO BLOCK THE TRUCKS

# Why to use safety chocks at the logistic loading and unloading docks?

The safety chocks from **Angel Mir**\*, also known as wheel lock systems for trucks or lock systems for trailers, have been designed to ensure optimum safety for workers and to reduce potential damage to the loading dock equipment.

The safety chocks avoid the truck to leave too early or the trailers to move back and forward during the process, keeping the wheels of the vehicle blocked and preventing the truck from accidentally separating during the loading and unloading operation. They are the best prevention against possible accidents that could have very serious consequences.

We have several models that adapt to multiple vehicles and application, ranging from simple and inexpensive locking systems, more complex systems with built-in safety signs, to others that need civil work and automatically block the truck's wheels. They all include:

- Very simple and intuitive operation speeding up its use.
- Easy installation on most surfaces.
- They have been designed for intensive use under extreme working conditions.







# **OUR WEDGE MODELS**

#### **SMART CHOCK** Model



#### POLY CHOCK Model



#### **POWER CHOCK** Model



**CALEMATIC** Model



STEEL CHOCK Model



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#### **POLY CHOCK PREMIUM Model**

Manual polyurethane wheel chock with positioning sensor that detects the vehicle wheel, and a control panel connects it to the existing doors and ramps.

Resistant, light and easy to handle, the chock blocks the truck's exit once parked at the loading point, while a set of traffic lights and indicators inform the operators from both the inside and outside. The connection between the sensor and the control panel is made by cables protected by a flexible polyester pole that prevents them from being dragged on the ground.

#### **Polychock Premium includes:**

- Polyurethane chock
- Sensor for detecting the wheel
- A flexible polyester pole to prevent cables from dragging on the ground
- Heavy-duty fibreglass arm and handle

#### Models:

Polychock Premium P3: with basic control box Polychock Premium P4: with smart box

Polychock Premium P5: for integration with the Isoperfect system







#### **POLY CHOCK BASIC** Model

Polyurethane chocks to block the truck when it is in the loading and unloading area. It is made of non-corrodible material. Its extreme hardness makes it indestructible. It is very economical and lightweight and incorporates an anti-theft security chain and a wall bracket.



#### **STEELCHOCK** Model

**SteelChock Wireless** is a manual chock that consists of a metal wedge with a positioning sensor that is manually placed under the wheel of the vehicle once it is positioned on the loading dock and prevents it from moving.

- Wireless.
- Set of traffic lights and audible alarms to warn operators.
- Made of steel sheet and finished painted in yellow and red.
- Interconnection with the door, the dock leveller and the dock shelter.
- Steel floor plate with longitudinal grooves for the fitting of the chock teeth.
- Synchronization with the new Signal Shelter system (page 27) to warn the driver of the status of the load.







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LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

#### **SMART CHOCK** Model

The Smart Chock integrates the signal lights and enables the operation of the door through an aluminum wedge equipped with optical sensors that detect the wheel of the truck.

#### Placement and operation

The chock is placed under the wheel and the interior control panel enables the opening of the door and the exterior panel indicates its correct placement.

A converging optical sensor, activated by the door, changes the signal from green to red and vice versa on the outer and inner panels, enabling the loading and unloading process.

Once the loading and unloading operation has been carried out, the door closes and the interior and exterior panels change state, allowing the driver to dislodge the chock and drive the truck.

The interior control panel and exterior communication panel contain low voltage, long life diodes, safe for drivers and operators.

The blinking diodes focused on the rearview mirror of the truck, always communicate to the driver the situation of the door.

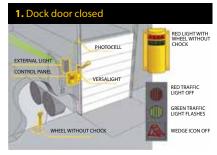
The signals from the interior control panel always communicate the situation of the chock to the internal operators. It can be integrated with the Versalight dock lighting system to increase security.

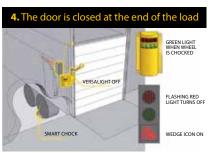






#### SMART CHOCK **Sequence of operations**

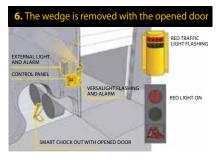












ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

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#### POWER CHOCK PREMIUM Model Semi-automatic wedge

This semi-automatic chock resists up to 25 tons of extraction force thanks to its high-strength steel and its exclusive retention system with teeth installed on the ground. The articulated arm makes precise placement of the chock on the retaining plate almost effortless. It is equipped with 3 sensors (arm, wheel and base) that are linked to an audiovisual communication system (traffic lights and external alarm). The optical sensor on the wheel confirms the correct placement of the wedge. A complete control, detection and communication system that allows interconnection with the door and the dock leveller.

It is compatible with 100% of vehicles, has a low maintenance cost and is very effective in winter as it works even in snow. It is very easy and practical to use. It is a durable wedge of maximum resistance made of galvanized steel and powder-lacquered finish, arm and retaining plate in hot-dip galvanized steel.

Premium model 5 without lock
Premium model 7 with lock







lock system detail

#### **POWER CHOCK BASIC** Model Manual wedge

It is a simple, effective, and easy to install vehicle locking system ideal for any loading dock. It is made up of a flexible rod that works in conjunction with a high-strength steel wedge and a retaining plate fixed in the ground. It comes equipped with an optical sensor on the wheel to confirm correct placement and includes a traffic light warning and alarm. It has manual operation and is compatible with 100% of vehicles. Optionally it allows connection with the dock door. It is a maximum resistance chock made of galvanized steel and powder-lacquered finish.





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# **CALEMATIC** Model Automatic wedge

The **automatic chocks** are an innovative safety system that prevents the loading vehicle from moving if the ramp is not in its rest position.

#### A simple system of use

**Automatic chocks** are easy to use and guarantee maximum safety. When the leveling ramp is open, the chocks are raised, completely immobilizing the vehicle, so loading or unloading can start safely. When the leveling ramp is closed, the wedges descend, leaving the vehicle free to move.

#### A robust system

They are made of steel sheet with an average thickness of 10mm and subsequently hot dip galvanized. The chocks are positioned in a prefabricated concrete pit.

#### An adaptable system

The **automatic chocks** adapt to the position of the axles, whatever the vehicle. The vehicle's wheels are automatically blocked by various chocks that make up the system.

#### 1. Clear Docks

The loading and circulation areas remain clear without interrupting maneuvers. Automatic chocks can be installed along a wall or in conjunction with truck guides.

#### 2. Simple maintenance

The modular assembly of the different elements favors quick and easy maintenance. The disassembly of the modules does not require any specific tool.

#### 3. Installation and commissioning

The assembly of the automatic chocks is extremely simple without large or expensive masonry work. A reinforced concrete frame is supplied, which is installed in the planned opening. The chocks are easily adapted to the housings designed for this purpose. It is necessary to provide a channel for the installation of compressed air pipes, as well as a drain to evacuate the accumulation of rainwater.



Double Calematic wedge.





**Duo** Calematic option.



Double Calematic wedge.





Mini wedge for lateral unloading point in patios.

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# **AEROTECH Air Renovator Model**

**Aerotech**'s aerodynamic design allows new air to be pushed into the interior by creating a virtual tube that recirculates the air along the entire length of the truck. Aerotech allows you to take full advantage of the moving air and at the same time consume less energy. This renews the air and creates a pleasant and productive working environment inside the truck.

It takes up 75% less space than conventional fans. The detachable plastic drive tube is located in a corner of the dock door and all mechanical components are mounted outside the door passage area, reducing the risk of accidental impacts. 0.33cv motor with thermal relay to prevent overheating. Easy to assemble and adjustable for different models and door sizes.



# **VERSALIGHT** Spotlight Model For docks

It is the leading product in truck unit lighting with **LED lighting technology (standard)**. This model incorporates a fan for cooling, a flexible stainless steel hose, approved for the food sector, as well as a multi-directional stainless steel hose resistant to the impact of doors and trolleys and easy to adjust to any position. Versalight guarantees a lifetime of 70,000 hours and up to two-thirds energy savings compared to other conventional systems. Correct lighting increases safety and minimises damage to the load and the trailer.

**Consumption:** 57 W **Light output:** 2.640 LM



# **VERSALIGHT MINI Model**

**Versalight Mini** is the new model with **LED lighting technology (standard)** is smaller and do not have a ventilator.

It is supplied with a flexible multidirectional stainless steel tube, it is resistant to impacts and easily adjusted to any position. Total dimensions:

Consumption: 39 W Light output: 3.850 LM



# Inexpensive lamp for docks **DOCKLIGHT**

Spotlight with articulated arm to light up the interior of trailers and trucks. It easily adjusts to any position and it is possible to change its orientation. It is made with steel tube and yellow paint finish. It incorporates a safety device that prevents the door hitting the arm, because this last folds in half avoiding damage. LED lighting technology.

**Consumption:** 25W **Light output:** 2.654 LM



# **AERO-DOCKLIGHT** Model Fan with built-in LED light

Fan with built-in LED light bulb to provide more safety and comfort in the loading dock. It illuminates and exchanges the air inside the vehicle, facilitating the work of the operators and minimizing possible damage to the load or the vehicle. Ideal for manual loading with telescopic conveyor belts with personnel working inside the truck.

It is a design that includes two devices in one: the high flow fan and the powerful led light source. A **Duo version** with double focus is available. Easily adjusts to any position using an articulated arm and two handles. High hardness materials. Orange painted finish.



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LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

# **GUIDE LED** Model Truck navigation system by led

The system provides a useful reference point for the driver of the trailer in assisting with the parking operation and avoiding misalignment due to conditions such as adverse weather or inexperienced drivers.

Product design allows to easily adapt to the characteristics of the load bay and, depending on the model, it can emit the signal light in different colours. LED technology allows energy savings not only dissipates heat but prevents the need to replace bulbs. It has been designed to resist outdoors. Easy installation at any loading dock.

The GUIDE LED 50 and GUIDE LED 220 systems have a position sensor for detecting the truck and, therefore, in addition to guiding the truck, also acts as a traffic light to indicate when to stop the truck, thus avoiding heavy blows by vehicle against the loading point and ensuring that no damages occur.

#### **GUIDE LED** Model

This model uses **two orange LEDs** used to guide the truck driver in aligning with the dock correctly.

#### **GUIDE LED 50** Model

This model utilizes the **two orange LEDs** for alignment and additionally have a **red LED** on the driver's side which is activated by sensor detecting up to 500mm from the dock wall and warning the driver when to brake. Additionally, it allows interconnection to lock the door if no truck is at the loading dock.

#### GUIDE LED 220 Model

This model uses **two white LEDs** to indicate whether the dock is free to use. **Two Orange LEDs** are used to help the driver align into the loading point centrally. **One Red LED** indicates the breaking point by performing a flash sequence with varying frequencies as the truck nears the dock wall. It allows interconnection to the dock door to lock if no vehicle is present at the loading dock.







# **SAFETY BARRIER** Model

The safety barriers have the function of preventing possible falls, of both operators and pallet trucks and forklifts, in the loading dock when the door is open, and the truck is not yet in place. Given the unevenness between the dock and the ground, a physical barrier is the best solution as form of safety containment. In addition, it also protects other equipment from possible impacts.

Suitable for any type of loading point, the barrier is installed in front of the lifting ramp to protect the outer dock space. Depending on the available height of the dock, it will have a vertical or horizontal lift. It is motorized and made of steel with a yellow RAL lacquered finish.

In those cases where the work of loading and unloading goods is done from a considerable height and by means of forklifts, a double safety barrier is the most effective solution to keep personnel protected during the whole process. It acts as a guardrail by creating a secure closed area. The double barrier can be either manual or automatic.



ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

#### **SAFETY BENCH**

The safety bench avoids that the semi-trailer without tractor unit unbalances and tilts forward when merchandise is gathered at its front part, preventing a serious accident from occurring at a loading dock.

#### **SAFETY BENCH FOR TRAILERS BSR 10 TONS**

Safety system for loading and unloading the semi-trailer without tractor unit having a maximum load of 10 tones, preventing it from tipping over during the process.

Easy and safe operation with a hand crank that drives the self-locking trapezoidal spindle by means of a conical gear. It has two speeds: load speed for lifting and lowering the load, and fast speed for movements without load. The design is careful and strong, thus obtaining greater strength and safety. The upper rubber prevents slipping between the cargo vehicle and the bench.

The device can be moved in a practical and quick way by the handlebar and the undercarriage on two wheels.

Lifting range: from 970 mm to 1,440 mm.



# **SAFETY BENCH FOR TRAILERS BSR 24 TONS**

The safety bench BSR supports trailers with a maximum load of 24 tons during the loading and unloading operation, preventing them from tipping over.

Lateral pillars with telescopic tube, by means of a crank, to adjust the support height. The crank has two positions, one fast to save time when raising or lowering the bench without weight. And the slow position that can raise and lower the weight of the vehicle. The upper woods are to prevent slipping between the cargo vehicle and the bench.

The bench moves easily thanks to the system with four lower wheels and handles.

Lifting range: from de 900 mm to 1,200 mm.





ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER
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# **MOBIL RAMP RM12**

Easy mobility ramps for facilities that do not have loading docks and specific loads in places where conventional dock work cannot be carried out (warehouses for rent, sporadic work or places where there is no electricity supply). Ideal for rear loads and containers. It has side protections that prevent the loading vehicles from falling in case they lose control. Upper platform with non-slip galvanized Tramex. Vertical movement by means of two hydraulic pistons driven by a manual pump (optionally automatic).

Possibility of installing an automatic or manual dock leveller with a base frame (mod. B0, B1 or B2, see page 18) in its front part and the possibility of a security system like our smart chock or our automatic chock. Consult the commercial department for the option of renting.

#### Capacity: 6,000 kg.

Standard model in permanent stock (fast delivery).

#### **Technical specifications:**

- Overall length: 11,600 mm. (aprox.)
- Supporting lip: 260 mm.
- Useful width: 2,005 mm.
- Maximum height: 1,600 mm. (aprox.)

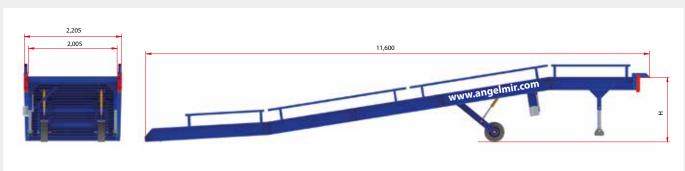
#### **Dimensions for transport:**

- Maximum length: 11,600 mm. (aprox.)
- Width: 2,205 mm.
- It can be made to specification.
- Minimum height: 900 mm. (aprox.)

#### **Options:**

- Width: 2,000 or 2,300 mm.
- Load of 10,12 y 15 tonnes.
- Automatic / Manual.
- Automatic with battery.
- Fixed with base frame and hydraulic ramp
- With PVC canvas cover.
- Combined with levelling ramps and base frames.





# **LOADING BAY EQUIPMENT**

DOCK **LEVELLERS**  **ISOPERFECT SYSTEM** 

DOCK **DOORS** 

DOCK **SHELTERS** 

**SAFETY SYSTEMS** 

**OTHER** SOLUTIONS FOR LOADING BAY

LIFTING **TABLES** 

**EXAMPLES OF** COMPLETED **PROJECTS** 



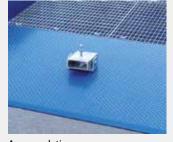
Protection post and chain attachment.



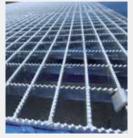
Manual pump drive.



Manual pump.



Accomodation ramp and transport support.



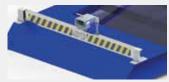
Anti-slip galvanized surface.



Support and safety feet (rest position). Larger wheels to ensure greater stability.



Option in galvanized steel.



Safety barrier option and support for movement.

# **Options**

# Option fixed ramp



Angled ramp with self-supporting base frame and Hidra dock leveller.



Fixed ramp with base frame and Hidra leveller.

# Option mobile ramp



Mobile ramp with PVC cover.



Mobile ramp for loading and unloading trains.

**ISOPERFECT SYSTEM** 

DOCK **DOORS** 

DOCK **SHELTERS** 

**SAFETY SYSTEMS** 

**OTHER SOLUTIONS FOR LOADING BAY** 

**LIFTING** TABLES **EXAMPLES OF** COMPLETED **PROJECTS** 

# **LOADING BRIDGES**

# **SKBS / SKBV** Models (ALUMINIUM)

Loading bridge with folding and sliding loading bridge built to overcome medium height differences of up to 215 mm. The platform made of special aluminium profiles is installed on a sliding ball bearing wheel support that serves for very slight lateral movement. The bridge can be moved downwards within a steel guide rail with an open profile, which means it can be stepped on from above and dirt is prevented from accumulating.

When not in use, its position is vertically upwards, secured by a fall arrest mechanism that closes automatically when the bridge is lifted. From a platform length of 1.065 mm, the bridges are equipped with a compensation spring system, integrated in the sliding support.

SKBV guide in bichrome steel.







MODEL SKBS	WIDTH mm.	LENGTH D mm.	m	SLOPE D mm. min.   max.		WEIGHT in Kg.
			111111.	IIIax.		
SKBS 01	1,250	815	-120	+80	4,000	57
SKBS 02*	1,250	1,315	-185	+140	2,500	99
SKBS 03*	1,250	1,565	-215	+175	1,750	110
SKBS 10	1,500	565	-90	+50	4,000	56
SKBS 11	1,500	815	-120	+80	4,000	66
SKBS 12*	1,500	1,065	-155	+110	4,000	99
SKBS 13*	1,500	1,315	-185	+140	4,000	110
SKBS 14*	1,500	1,565	-215	+175	4,000	124

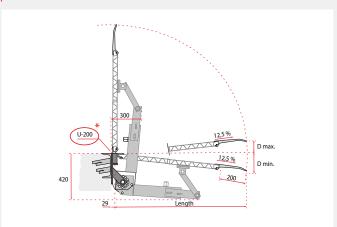
SKDS	111111.	111111.		1111.	III Kg.	iii kg.
			min.	max.		
SKBS 01	1,250	815	-120	+80	4,000	57
SKBS 02*	1,250	1,315	-185	+140	2,500	99
SKBS 03*	1,250	1,565	-215	+175	1,750	110
SKBS 10	1,500	565	-90	+50	4,000	56
SKBS 11	1,500	815	-120	+80	4,000	66
SKBS 12*	1,500	1,065	-155	+110	4,000	99
SKBS 13*	1,500	1,315	-185	+140	4,000	110
SKBS 14*	1,500	1,565	-215	+175	4,000	124

<sup>\*</sup> Models with spring

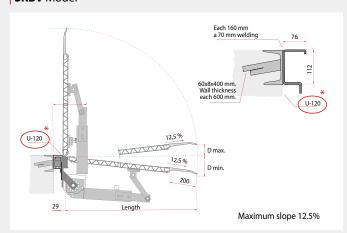
MODEL SKBV	WIDTH mm.	LENGTH D mm.	SLOPE D mm.		LOAD in Kg.	WEIGHT in Kg.
			min.	max.		
SKBV 01	1,250	815	-120	+80	4,000	67
SKBV 02*	1,250	1,315	-185	+140	2,500	102
SKBV 03*	1,250	1,565	-215	+175	1,750	113
SKBV 10	1,500	565	-90	+50	4,000	67
SKBV 11	1,500	815	-120	+80	4,000	77
SKBV 12*	1,500	1,065	-155	+110	4,000	103
<b>SKBV 13*</b>	1,500	1,315	-185	+140	4,000	114
SKBV 14*	1,500	1,565	-215	+175	4,000	128

<sup>\*</sup> Models with spring

#### SKBS Model



# SKBV Model



ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

# FIXED PPF-S AND MOBILE PPF-V LOADING BRIDGES (ALUMINIZED STEEL)

Steel loading bridges for external and internal docks and used when small and medium height differences between the edge of the dock and the vehicle must be bridged.

The loading bridge is mounted at the tip of the dock with a steel hinge and is lowered onto the vehicle body during the loading/unloading process with the operating rod. The pressure springs compensate the weight of the loading bridge so that it can be easily used by one person. From the width of 2.000 mm, we recommend the use of two rods (levers) to allow the operation of two people. In the resting position, the loading bridge is placed vertically on the

edge of the platform and fixed in this position by the automatic fall protection function.

Two models are available. On the one hand, the **PPF-S** model, which remains fixed in the loading dock. On the other hand, the **PPF-V** model is moved by means of a rail. This loading bridge is supplied in line with the dimensions used by other companies, so there is no need for an expensive change to an already installed guide section. All models comply with the new European standard EN 1398.

	WIDTH mm.	LENGTH D mm.	SLOPE D mm.		LOAD in Kg.
			min.	max.	
FIXED	1,500	1,250	-245	+175	6,000
Model	1,750*	1,500	-295	+225	6,000
PPF	2,000	1,750	-340	+265	6,000
		2,000*	-390	+310	6,000

<sup>\*</sup> STD model (1,750 mm width x 2,000 mm length).

PPF-SA model (aluminized steel)

	WIDTH mm.	LENGTH D mm.		OPE D nm.   max.	LOAD in Kg.
MOVABLE	1.500	1,250	-245	+175	6,000
Model	1.750*	1,500	-295	+225	6,000
PPF-V	2.000	1,750	-340	+265	6,000
		2,000*	-390	+310	6,000

<sup>\*</sup> STD model (1,750 mm width x 2,000 mm length). The rails are supplied with sections of 3 meters

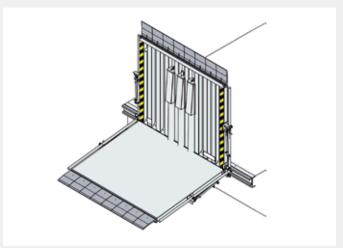
PPF-VA model (aluminized steel)



Loading bridge with rail and fixed lip in steel. (STD stock)



Half-lip in aluminium (optional, no STD).



For details of the civil work preparation for both models, request to Technical Office.

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LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

# **KBS** Model (ALUMINIUM)

#### **Common characteristics:**

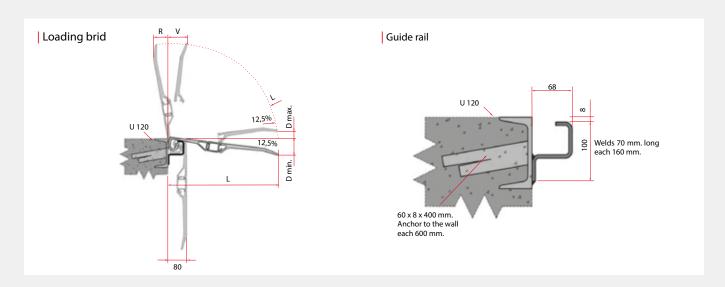
- Movement along the guide.
- They do not need civil works for their installation.
- Once installed, it is impossible for the loading bridge to leave its guide.
- Anti-fall safety lock system.
- The aluminium guide is necessary even with the fixed model.



MODEL	LENGTH D	WIDTH	SLOPE E		LOAD	WEIGHT
	mm.	mm.	min.	max.	in Kg.	in Kg.
KBS 0	410	1,250	-70	+30	4,000	19
KBS 12	535	1,250	-90	+45	4,000	24
KBS 1	660	1,250	-105	+60	4,000	28
KBS 13	785	1,250	-120	+75	4,000	31
KBS 2	910	1,250	-135	+90	4,000	36
KBS 3	1,160	1,250	-165	+120	4,000	44
KBS 4	410	1,500	-70	+30	4,000	23
KBS 14	535	1,500	-90	+45	4,000	28
KBS 5	660	1,500	-105	+60	4,000	33
KBS 15	785	1,500	-120	+75	4,000	38
KBS 6	910	1,500	-135	+90	4,000	44
KBS 7	1,160	1,500	-165	+120	4,000	53



Models in permanent stock



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# **HF** Model (ALUMINIUM)

The **HF** transportable loading bridge model is made of 40 mm thick hollow aluminium honeycomb plates with a non-slip grooved surface. The heavy-duty platforms are reinforced underneath with additional ribbing. A movable lip at the entrance, supported by a rubber strip, ensures smooth access for rollers and small wheels without the risk of unintentional movement.

**Optional:** safety side arms.



Reinforced transportable loading bridge

MODEL	LENGTH mm.	WIDTH mm.	SLOPE min.	(mm) max.	LOAD in Kg.	WEIGHT in Kg.
HF 15.12	1,485	1,250	+75	+14	4,000	65
HF 15.15	1,485	1,500	+75	+140	4,000	76
HF 17.12	1,735	1,250	+90	+170	4,000	75
HF 17.15	1,735	1,500	+90	+170	4,000	88
HF 20.12	1,985	1,250	+110	+200	4,000	91
HF 20.15	1.,985	1,500	+110	+200	4,000	105
HF 22.12	2,235	1,250	+125	+235	4,000	101
HF 22.15	2,235	1,500	+125	+235	4,000	117
HF 25.12	2,485	1,250	+145	+265	4,000	116
HF 25.15	2,485	1,500	+145	+265	4,000	134

Transportable loading bridge with mobile lip (HF mobile lip)

MODEL	LENGTH	WIDTH	SLOPE	(mm)	LOAD	WEIGHT
	mm.	mm.	min.	max.	in Kg.	in Kg.
HF 12.12	1,235	1,250	0	+110	4,000	52
HF 12.15	1,235	1,500	0	+110	4,000	61
HF 15.12	1,485	1,250	0	+140	3,500	61
HF 15.15	1,485	1,500	0	+140	3,500	72
HF 17.12	1,735	1,250	0	+170	3,000	70
HF 17.15	1,735	1,500	0	+170	3,000	83
HF 20.12	1,985	1,250	0	+200	2,000	82
HF 20.15	1,985	1,500	0	+200	2,000	96
HF 22.12	2,235	1,250	0	+235	1,800	91
HF 22.15	2,235	1,500	0	+235	1,800	107
HF 25.12	2,485	1,250	0	+265	1,600	100
HF 25.15	2,485	1,500	0	+265	1,600	118

# KVAN Model (ALUMINIUM) Loading bridge for vans

Loading bridge designed for loading and unloading light products, it is non-slip and is manufactured in an aluminium profile. By means of a safety chain, it can be put in rest or working position. The fall arrest system is released with the foot and automatically secures the bridge in an upright position.

Capacity: 300 kg. Option: 700 kg.





MODEL	ARTICLE mm.	WIDTH mm.	WIDTH SUP mm.	LENGTH mm.	HIGHT Min.	mm Max.	CAPACITY Punctual.	(Kg / Piece) Shaft load	WEIGHT (Kg / piece)
KVAN 01	302.24.020	1,250	870	570	126	70	150	300	11
KVAN 02	302.24.022	1,250	750	570	126	70	150	300	11
KVAN 03	302.24.021	1,250	1,250	660	126	95	350	700	16

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LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

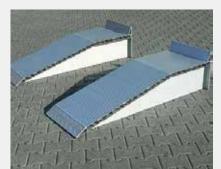
# C Model Aluminium levellers

For easy movement to their place of employment, they are equipped with a central wheel for handling by one person. As standard, each chock is fitted with a safety (anti-roll) stop for the wheel. Made of robust, corrosion-resistant aluminium with hollow honeycomb profiles, the chocks are very strong and light at the same time. With their very high load capacity they meet the high requirements of modern freight traffic for vehicles up to 12 tonnes.

MODEL	LENGTH	WIDTH	HEIGHT	Slop up	Standing platform	LOAD in Kg.	STEEL WEIGHT	ALUMINIUM WEIGHT
							in Kg.	in Kg.
C 14.15	1,440	500	145	950	500	12,000	125	31
C 14.19	1,440	500	190	950	500	12,000	158	32
C 14.29	1,440	500	290	950	500	12,000	190	38
C 20.39	2,030	500	390	1.300	750	12,000	255	65







C model in aluminium.

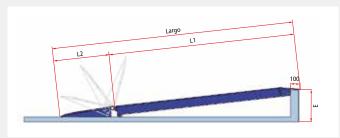
# M Model (STEEL) To unload containers

The mobile loading bridge model **M** is used for loading and unloading containers at ground level where forklifts have to enter that weigh up to 6 tonnes. Integrated fork sockets allow easy and fast transport from the loading bridge to the loading bays. To secure the platform in the container, it has 1 mooring chain on each side. The construction is extremely robust and ensures that heavy forklifts can use it without any problem.



MODEL	LENGTH L	LENGTH L1	LENGTH L2	WIDTH	SLOPE E (mm)		LOAD	WEIGHT
	mm.	mm.	mm.	mm.	min.	max.	in Kg.	in Kg.
M 21.20	2,130	1,605	480	2,000	+60	+235	6,000	505
M 23.20	2,380	1,855	480	2,000	+60	+265	6,000	550
M 23.23	2,380	1,855	480	2,300	+60	+265	6,000	630
M 26.20	2,680	2,105	480	2,000	+60	+295	6,000	600

#### M Model STEEL







Detail of the access lip.

Transport detail.

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# KA-V / KA-S Models (STEEL)

This manually operated loading bridge is made of chequered, non-slip plate, reinforced with tubes on the underside. A set of compensating springs ensures upward and downward movement without major effort. It has an arm to be able to position it manually on the truck. The inclination of the lip and its milled front end ensure undisturbed load circulation.

It has a safety lock system that prevents unwanted movement of the platform (wind, shocks, etc.). The side guards prevent the forklifts from accidentally falling.

No civil works are required for its installation. The guide for lateral movement is welded to the protective profile of the loading dock.







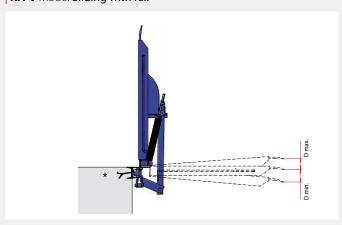
MODEL Sliding <b>KA-V</b>	WIDTH mm.	LENGTH D mm.		DPE D nm.   max.	LOAD in Kg.
KA-V 12-10	1,200	1,000	-135	+113	4,000
KA-V 15-10	1,500	1,000	-135	+113	4,000
KA-V 20-10	2,000	1,000	-135	+113	4,000
KA-V 15-15	1,500	1,500	-135	+174	4,000
KA-V 18-15	1,800	1,500	-135	+174	4,000

Always with steel guide rail.

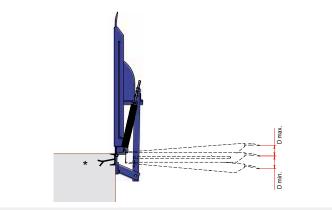
MODEL Fixed	WIDTH mm.	LENGTH D		PE D m.	LOAD in Kg.
KA-S			min.	max.	iii kg.
KA-S 10-12	1,200	1,000	-135	+113	4,000
KA-S 15-10	1,500	1,000	-135	+113	4,000
KA-S 20-10	2,000	1,000	-135	+113	4,000
KA-S 15-15	1,500	1,500	-135	+174	4,000
KA-S 18-15	1,800	1,500	-135	+174	4,000

No steel guide rail is required.

# KA-V Model Sliding with rail



# | KA-S Model Static / Fixed



<sup>\*</sup> Requires UPN 200 type profile (recommended), set into the concrete (not included).

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# PFV / PFB Models (FIBERGLASS)

Anti-slip surface with chequered relief, reinforced with aluminium profile and rubber on the entry edges.

- Galvanized steel bottom space between supports.
- Standard colours: green, blue or orange.

#### **PFV** Model

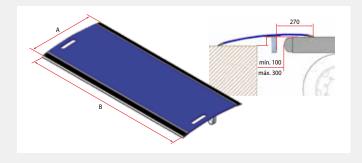


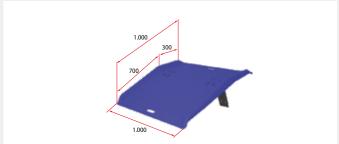
MODEL	LENGTH A mm.	LENGTH B mm.	DISTANCE min. (mm.)	SLOPE max. (mm.)	LOAD in Kg.	WEIGHT in Kg.
PFV 12.80	800	1,265	100/250	100	4,000	25
PFV 15.80	800	1,515	100/250	100	4,000	29
PFV 18.80	800	1,835	100/250	100	4,000	33
PFV 12.10	<b>2</b> 1,025	1,215	100/250	120	4,000	28

### **PFB** Model



MODEL			DISTANCE			
	mm.	mm.	min. (mm.)	max. (mm.)	in Kg.	in Kg.
PFB 100.10	<b>0</b> 1,000	1,000	100/250	120	4,000	28





# **PFB-V** Model (WITH GUIDES)

Our new folding loading bridges are ideal for bridging small gaps between the platform and the vehicle, to facilitate the passage of light machinery and/or for loading and unloading.

They can be moved laterally within their guide, which allows them to be positioned exactly where they are to be used. In addition, they can be raised and lowered very comfortably, as they have a lever on the side that allows them to be moved safely and effortlessly. For greater safety, they have a fall protection device to ensure that they do not fall when they are in an upright position.



# **NEW**

# PFB-V KVAN Fiberglass loading bridges



Fiberglass folding cargo loading bridge designed for loading and unloading vans. Equipped with safety chain to avoid possible falls in resting mode.

**Capacity:** 1,000 kg. **Dimensions:** 1,250 / 850 mm. x 790 mm.



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# **NEW**

# **DOCKS LEVELLERS**

Dock levellers are used to adapt the height of the dock to vans or delivery trucks without the need for any civil works such as a sloping ramp. They lift the vans to the same height as the semi-trailers and move to the sides according to the width of the transport vehicle.

The dock levellers are manufactured in steel to guarantee their resistance and, for more safety, they have an automatic blockage system.





# Three leveller models are available:

#### NAC

Levellers with system fixed to the loading dock, which moves and adjusts itself according to the width of the vehicle. It can have different lengths to lift the whole truck or van, or only the rear part.







NAC-300-1000 Model

**NAC-300-4000** Model Step option.

MODEL	Height platform A mm.	Length platform B mm.	Width platform C mm.	Total length D mm.	Total width E mm.	Fitting between wheel centres F mm.	Load capacity G Kg.	Weight H Kg.
NAC 200 1000	200	1,000	500	2,040	4,000	800-3,400	6,000	255
NAC 200 2000	200	2,000	500	3,040	4,000	800-3,400	6,000	365
NAC 200 3000	200	3,000	500	4,040	4,000	800-3,400	6,000	480
NAC 200 4000	200	4,000	500	5,040	4,000	800-3,400	6,000	580
NAC 200 5000	200	5,000	500	6,040	4,000	800-3,400	6,000	695
NAC 250 1000	250	1,000	500	2,030	4,000	800-3,400	6,000	270
NAC 250 2000	250	2,000	500	3,030	4,000	800-3,400	6,000	390
NAC 250 3000	250	3,000	500	4,030	4,000	800-3,400	6,000	510
NAC 250 4000	250	4,000	500	5,030	4,000	800-3,400	6,000	625
NAC 250 5000	250	5,000	500	6,030	4,000	800-3,400	6,000	750
NAC 300 1000	300	1,000	500	2,280	4000	800-3,400	6,000	308
NAC 300 2000	300	2,000	500	3,280	4,000	800-3,400	6,000	435
NAC 300 3000	300	3,000	500	4,280	4,000	800-3,400	6,000	575
NAC 300 4000	300	4,000	500	5,280	4,000	800-3,400	6,000	700
NAC 300 5000	300	5,000	500	6,280	4,000	800-3,400	6,000	835

#### NP

Levellers with portable system with forklift. Its width can be adjusted depending on the vehicle and it lifts only the rear of the truck or parcel van.





NP-200-1000

MODEL	Height platform A mm.	Length platform B mm.	Width platform C mm.	Total length D mm.	Total width E mm.	Fitting between wheel centres	Load capacity G Kg.	Weight H Kg.
NP 150 1000	150	950	500	1,620	3,300	1,820-2,720	6,000	205
NP 200 1000	200	950	500	1,625	3,300	1,820-2,720	6,000	215
NP 250 1000	250	950	500	1,820	3,300	1,820-2,720	6,000	245
NP 300 1000	300	950	500	2,010	3,300	1,820-2,720	6,000	275

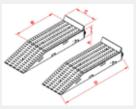
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#### **NMR**

Mobile levellers with manual system by wheels.





NMR\_200\_1000

MODEL	Height platform A mm.	Length platform B mm.	Width platform C mm.	Total Length D mm.	Load capacity G Kg.	Weight H Kg.
NMR 150 1000	150	950	500	1,725	6,000	62,5
NMR 200 1000	200	950	500	1,730	6,000	67,5
NMR 250 1000	250	950	500	1,925	6,000	85
NMR300 1000	300	950	500	2,115	6,000	97,5
NMR 150 1000_10T	150	950	500	1,725	10,000	80
NMR 200 1000_10T	200	950	500	1,730	10,000	90
NMR 250 1000_10T	250	950	500	1,925	10,000	105
NMR 300 1000_10T	300	950	500	2,115	10,000	125
NMR 150 2000	150	1,950	500	2,725	6,000	107,5
NMR 200 2000	200	1,950	500	2,730	6,000	117,5
NMR 250 2000	250	1,950	500	2,925	6,000	140
NMR 300 2000	300	1,950	500	3,115	6,000	157,5

# **MANUAL MINI RAMP** Model

The most economical with a maximum capacity of 6 tonnes. The Mini Ramp from Angel Mir\* is a good solution for places where the integration of a classic leveller is not possible and where there is very little difference in height between the truck floor and the platform.

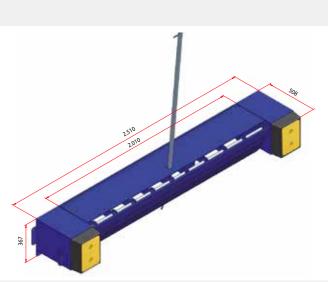
The method of fixing directly to the cornice angle on the construction site allows easy adaptation and very fast assembly even in places where no levellers are to be installed.

It is a completely manual mechanism, compensated by a gas cylinder and can be easily used by one person.

The system adapts to the movement of the truck's suspensions. It automatically remains in the rest position in case the truck leaves the dock.

#### Attention!

According to the UNE-EN 1398 standard, the working gradient cannot exceed 12.5% (7°).



WIDTH	LENGTH	WIDTH TOTAL	ADJUNTABLE	LOAD
mm.	mm.	mm.	HEIGHT mm.	en Kg.
2.000	680	2.510	-60 / +120	6.000





Lacquered Mini ramp.

Galvanised Mini Ramp.

Mini ramp with pit.

- Weight compensation mechanism: pressurized gas cylinder.
- Finish: blue Ral 5010
- Vehicle positioning side stops made of galvanized steel plate and polyurethane or rubber bumpers.



In the case of the AB shelter, the model with a depth of 900 mm must be ordered.

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LIFTING TABLES

EXAMPLES OF COMPLETED PROJECTS

# **LIFTING TABLES**

The lifting tables from **Angel Mir** have a remarkable place in the areas of goods production and manipulation, where it is necessary to make a difference at all levels, either fixed or mobile. The lifting tables are mainly in charge of motionless, bulky and uncomfortable loads, as well as the different types of goods and carriers. The lifting tables increase productivity, rationalize the manufacture activities and supply all the necessary environmental comfort as well as bringing ergonomic solutions to avoid damages. The lifting tables from **Angel Mir** can be included in the automated logistic systems.

Furthermore, they can be independent units within the production system. They can be ready-made to satisfy your needs and special requirements. At the moment of investing in lifting platforms, it is recommended to perform a detailed analysis of the tasks to avoid future limitations concerning the several applications and to make sure the expectations at hand are fulfilled. All the **Angel Mir**\* products are in a constant development, pointing to the attainment of higher applications and the improvement of safety. The objective is to consider the lifting platform as an essential equipment of performance and production. Besides its wide standard equipment, the lifting tables from **Angel Mir**\* can be supplied with an additional equipment to simplify its use and enhance its safety and versatility.

# **SINGLE SCISSOR TABLE** Model

The single scissor lift table by **Angel Mir**<sup>®</sup> consists of a lift platform based on a simple scissor movement. This is the basic model from our range of elevating scissor platforms.

It has a multi-function application and is mainly used to solve problems related to uneven ground in production and logistics areas. Its use allows these areas to be evened out.

#### Features:

- Load capacity up to 10,000 kg.
- Lift stroke of 500-2,000 mm.
- Dimensions of platform (see table).











The steel structure of the main support is a square shaped steel platform to ensure greater stability and strength.

Customized solutions can be provided.

Economic range

MODEL	CAPACITY in Kg.	PLATFORM (L x A)	LENGTH (max.)	WIDTH (max.)	LIFT (mm.)	FOLDING (mm.)	TIME lift. (sec.)	ENGINE (Kw)	WEIGHT in Kg.
M0-005050-D1	500	800x600	1,100	1,100	500	180	9	0,75	130
M1-005090-D1	500	1,350x800	1,700	1,300	900	180	20	0,75	210
M1-005090-D1B	500	1,350x1,000	1,700	1,500	900	180	20	0,75	220
M1-005125-D1	500	1.800x800	2,150	1,300	1,250	220	19	0,75	255
M2-005160-D1	500	2,250x800	2,650	1,300	1,600	220	33	0,75	430
M1-0100065-D1	1,000	1,000x800	1,300	1,300	650	180	12	0,75	170
M1-010090-D1	1,000	1,350x800	1,600	1,300	900	180	20	0,75	210
M1-010090-D1B	1,000	1,350x1,000	1,600	1,500	900	180	20	0,75	220
M1-010125-D1	1,000	1,800x800	2,050	1,300	1,250	220	33	0,75	255
M2-010125-D2B	1,000	1,800x1,200	2,200	1,700	1,250	235	27	1,1	410
M0-005080-D1 *	500	1,280x800	1,160	600	800	200	19	0,72	150
M0-010080-D1 *	1,000	1,280x800	1,160	600	800	200	19	0,72	160
M0-020080-D2 *	2,000	1,350x800	1,335	600	800	220	25	1,43	210

 $<sup>^{\</sup>star}$  Economic range; only supplied in colour blue RAL 5019.

DOCK LEVELLE<u>RS</u> ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES

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# **LOW-BUILT TABLES** Model

The **low-built** tables from **Angel Mir**<sup>®</sup> are the rational and economic solution for handling equipment in the production line that is subordinate to logistic systems. They are also a stand-alone workstation for off-line tasks.

The extra-flat tables have a totally vertical lifting stroke. This is an important requirement when installing the platform lift on a production line that is subordinate to logistics systems.

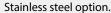
Thanks to their low weight they do not require a floor pit to be built. This allows the equipment to be used efficiently in various areas. The operator is always at the right height to carry out their work. They allow the workspace to be ergonomically comfortable.

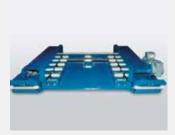
The power supply unit for the extra-flat platform and the U-shaped platform is preferably positioned separately from the lifting platforms, allowing the full flexibility of the equipment to be used.

**Stainless steel option:** extra flat lifting table supplied in stainless steel available in U-shape, extra flat and MLUFLAT extra flat and folding flush with the floor, with the option to incorporate an accommodation ramp.









Low-profile with rollers.



**ML** Model



**MLU** Model



MLU Model tip up



**MLE** Model

MODEL	CAPACITY in Kg.	PLATFORM (L x A)	LENGTH (max.)	WIDTH (max.)	LIFT (mm.)	FOLDING (mm.)	TIME lift. (sec)	ENGINE (Kw)	WEIGHT in Kg.
ML-005080-D2	500	1,350x600	2,000	800	800	80	19	0,48	180
ML-005080-D2	500	1,350x800	2,000	1,050	800	80	19	0,48	190
ML-005080-D2	500	1,350x1.050	2,000	1,400	800	80	19	0,48	210
ML-010080-D2	1,000	1,350x600	2,000	800	800	80	19	0,72	185
ML-010080-D2	1,000	1,350x800	2,000	1,050	800	80	19	0,72	200
ML-010080-D2	1,000	1,350x1,050	2,000	1,400	800	80	19	0,72	220
ML-020080-D2	2,000	1,400x800	2,100	1,050	800	95	30	0,72	270
ML-020080-D2	2,000	1,400x1,200	2,100	1,500	800	95	30	0,72	300
MLU-005080-D2	500	1,350x1,050	1,350	1,050	800	80	19	0,48	185
MLU-010080-D2	1,000	1,350x1,050	1,350	1,050	800	80	19	0,72	200
MLU-020080-D2	2,000	1,400x1,200	1,400	1,200	800	95	30	0,72	300
MLU-015080-D2	1,500	1,380x1,590			800	85	14	0,72	530
MLU-015080-D2/B	1,500	1,380x1,790			800	85	14	0,72	530

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES

EXAMPLES OF COMPLETED PROJECTS

# **HIGH-LIFT TABLES** Model

Single movement scissor tables have a limited stroke. In most cases, the maximum stroke is equal to the platform length divided by 1.5. Higher strokes are achieved by designing the lift table with a multiple set of vertically mounted scissors. High-lift tables can be used as work platforms, pallet loaders, elevators, disabled persons lifts and pallet stackers.

**Angel Mir** standard high lift tables have the following characteristics:

#### **Features:**

- Load capacity of up to 4,000 kg.
- Lift stroke 800-4,300 mm.
- For models and sizes see table below.

Customized solutions can be provided.









MODEL	CAPACITY in Kg.	PLATFORM (L x A)	LENGTH (max.)	WIDTH (max.)	LIFT (mm.)	FOLDING (mm.)	TIME lift (sec)	ENGINE (Kw)	WEIGHT in Kg.
MO-004080-D12H	400	800x600	1,150	850	800	200	19	0,55	120
M2-005180-D12H	500	1,350x1,000	1,700	1,200	1,800	350	19	1,43	450
M2-005320-D22H	500	2,250x1,000	2,600	1,500	3,200	400	37	2,2	650
M2-010180-D22H	1,000	1,350x1,000	1,700	1,500	1,800	350	21	2,2	450
M2-010200-D22H	1,000	1,500x1,000	1,850	1,500	2,000	350	21	2,2	490
M2-010250-D22H	1,000	1,800x1,000	2,150	1,500	2,500	350	30	2,2	540
M3-010320-D22H	1,000	2,250x1,000	2,600	1,500	3,200	500	43	2,2	870
M2-010330-D23H	1,000	1,650x1,200	1,950	1,700	3,300	530	34	2,2	665
M2-015180-D22H	1,500	1,350x1,000	1,600	1,500	1,800	400	21	2,2	450
M3-020200-D22H	2,000	1,500x1,000	1,900	1,500	2,000	500	25	2,2	645
M3-020200-D22H	2,000	1,500x1,800	1,900	2,000	2,000	500	25	2,2	900
M3-020320-D22H	2,000	2,250x1,000	2,650	1,500	3,200	530	40	4,6	870
M3-020380-D23H	2,000	2,250x1,200	2,650	1,700	3,800	800	41	4,6	1,150
M3-020380-D23HB	2,000	2,250x1,800	2,650	2,000	3,800	800	41	4,6	1,250
M3-020430-D22H	2,000	3,000x1,200	3,300	1,700	1,700	650	43	4,6	1,140
M3,5-025320-D22H	2,000	2,500x1,200	2,900	1,700	1,700	530	40	4,6	1,350
M4-030300-D22H	3,000	2,500x1,300	2,900	1,800	1,800	700	33	4,6	1,580
M4-040300-D22H	4,000	2,500x1,500	2,900	3,000	3,000	700	46	4,6	1,650

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES

EXAMPLES OF COMPLETED PROJECTS

# TWIN SCISSOR LIFT Model

The twin scissor lift table by **Angel Mir**° comes with two or more sets of scissors, placed in line to reach the required platform length, as well as the desired load capacity. Basically, it consists of a combination of several single scissor tables.

The lift stroke of the set of scissors is controlled by synchronization in order to carry out a movement which is parallel to that of lifting.

#### **Features:**

- Load capacity up to 8,000 kg.
- Lift stroke 900-2,000 mm.
- For models and sizes see table below.

Customized solutions can be provided.







MODEL	CAPACITY in Kg.	PLATFORM (L x A)	LENGTH (max.)	WIDTH (max.)	LIFT (mm.)	FOLDING (mm.)	TIME lift (sec)	ENGINE (Kw)	WEIGHT in Kg.
M2-020090-D4/2L	2,000	2,700x1,000	4,500	1,500	900	240	18	2,2	610
M2-020125-D4/2L	2,000	3,600x1,000	5,600	1,500	1,250	260	28	2,2	740
M2-020125-D4/2L	2,000	4,000x2,000	5,600	2,500	1,250	250	27	2,2	1,300
M2-020160-D4/2L	2,000	4,500x1,000	6,000	1,500	1,600	300	29	2,2	875
M2-020160-D4/2L	2,000	4,500x1,500	6,000	2,000	1,600	300	29	2,2	1,080
M3-020200-D4/2L	2,000	6,000x1,500	7,500	2,000	2,000	300	45	4,6	1,800
M3-020200-D4/2LB	2,000	6,000x2,000	7,500	2,200	2,000	300	45	4,6	2,150
M3-040110-D4/2L	4,000	3,600x1,000	5,600	1,500	1,100	300	33	2,2	980
M3-040130-D4/2L	4,000	4,000x1,200	6,200	1,700	1,300	340	29	4,6	1,100
M3-040160-D4/2L	4,000	4,500x1,200	6,800	1,700	1,600	340	34	4,6	1,200
M3-040160-D4/2LB	4,000	4,500x2,000	6,800	2,500	1,600	340	34	4,6	1,600
M3-040200-D4/2L	4,000	6,000x1,500	7,500	2,000	2,000	340	45	4,6	1,800
M3,5-040200-D4/2L	4,000	6,000x2,000	7,500	2,200	2,000	340	45	4,6	2,270

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

# **CAR LIFT TABLES** Model

**Angel Mir**\* vehicle lifts can be used to transporting vehicles from one floor of a building to another, for example, in sales facilities, showrooms and car parks.

This vehicle lift was designed for transporting vehicles, not people.

It can only be used for equally distributed loads and not as a conventional lift platform.

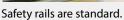
Special training is required for operation and use of these lifts. Installation should be carried out in accordance with current safety regulations.

#### **Features:**

- Load capacity up to 2,500 kg.
- Lift stroke up to 7,000 mm.
- For models and sizes see table below.
- Can be customized by weight and size.









MODEL	CAPACITY in Kg.	PLATFORM (L x A)	LENGTH (max.)	WIDTH (max.)	LIFT (mm.)	FOLDING (mm.)	TIME lift (sec.)	ENGINE (Kw)	WEIGHT in Kg.
M4,5-020350-D2	2,000	5,000x2,500	5,000	2,500	3,500	450	46	4,6	2,600
M5-025400-D2	2,500	6,000x2,500	6,000	2,500	4,000	650	80	4,6	3,500
M6-025450-D2	2,500	6,100x2,500	6,100	2,500	4,500	650	80	4,6	3,500
M5-020500-D2/2H	2,000	5,000x2,500	5,000	2,500	5,000	1,200	65	4,6	4,500

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES

EXAMPLES OF COMPLETED PROJECTS

# **LOADING DOCK TABLES** Model

The load platform compensates for the difference in height between the loading/unloading vehicle and the loading bay.

It has been mainly designed for use outdoors in difficult weather conditions.

Loading bay lift tables by **Angel Mir**\* are designed and equipped to withstand load and weather condition difficulties, which usually occurs when vehicles cross the lift platform.

#### **Features:**

- Load capacity up to 10,000 kg.
- Lift stroke 1,600 2,000 mm.
- For models and sizes see table below.



Lifting table with folding half-lip.



Lifting table installed inside with aluminium loading bridge.

MODEL	CAPACITY in Kg.	PLATFORM (L X A)	MAXIMUM LENGTH (mm.)	MAXIMUM WIDTH (mm.)	LIFT (mm.)	FOLDING (mm.)	ENGINE (Kw)	WEIGHT in Kg.
T1-M1-C2	2,000	2,000 x 1,500	2,300	1,950	1,300	305	1,10	950
T1-M2-C2	2,000	2,000 x 2,000	2,300	2,350	1,300	305	1,10	1,100
T2-M3-C2	2,000	2,500 x 1,500	2,800	1,950	1,600	305	2,20	1,000
T2-M4-C2	2,000	2,500 x 2,000	2,800	2,350	1,600	305	2,20	1,170
T2-M5-C2	2,000	2,500 x 2,400	2,800	2,500	1,600	305	2,20	1,320
T2-M6-C2	2,000	3,000 x 2,000	3,000	2,350	1,600	305	2,20	1,300
T2-M7-C2	2,000	3,000 x 2,400	3,000	2,500	1,600	305	2,20	1,575
T3-M8-C4	4,000	2,000 x 1,500	2,300	1,950	1,300	305	2,20	1,000
T3-M9-C4	4,000	2,000 x 2,000	2,300	2,350	1,300	305	2,20	1,150
T4-M10-C4	4,000	2,500 x 1,500	2,800	1,950	1,600	450	2,20	1,300
T4-M11-C4	4,000	2,500 x 2,000	2,800	2,350	1,600	450	2,20	1,500
T4-M12-C4	4,000	2,500 x 2,400	2,800	2,500	1,600	450	2,20	1,700
T4-M13-C4	4,000	3,000 x 2,000	3,000	2,350	1,600	450	2,20	1,650
T4-M14-C4	4,000	3,000 x 2,400	3,000	2,500	1,600	450	2,20	1,830
T5-M15-C6	6,000	2,250 x 1,500	2,500	1,950	1,300	450	3,00	1,300
T5-M16-C6	6,000	2,250 x 2,000	2,500	2,350	1,300	450	3,00	1,500
T6-M17-C6	6,000	2,500 x 1,500	3,000	1,950	1,600	450	4,00	1,400
T6-M18-C6	6,000	2,500 x 2,000	3,000	2,350	1,600	450	4,00	1,600
T6-M19-C6	6,000	2,500 x 2,400	3,000	2,500	1,600	450	4,00	1,600
T6-M20-C6	6,000	3,000 x 2,000	3,000	2,350	1,600	450	4,00	1,750
T6-M21-C6	6,000	3,000 x 2.400	3,000	2,500	1,600	450	4,00	1,930

Note: Please consult for other loads (over or low), dimensions, fold height and lift stroke.







# **LOADING BAY EQUIPMENT**

DOCK LEVELLERS ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES

EXAMPLES OF COMPLETED PROJECTS

# **OPTIONAL FITTINGS**

In addition to the general standard fittings, **Angel Mir**\* lift tables can be supplied with additional features to simplify handling and enhance safety and versatility.

#### 1 Trolley frame

Places the table in a frame with wheels to provide mobility and stability to your goods. You can opt for two fixed and two castered wheels or two wheels and a front carriage

#### 2 Boggie frame

The easiest way to overcome problems of uneven ground in rail transport is to provide the table with flanged wheels. The base can be either a non propelled carriage or can be fitted with a self propulsion drive unit.

#### 3 Roll- off guard

Prevents goods placed on the platform from rolling off the table; used mainly in loading docks and smilar applications.

#### 4 Loading flap

An effective way to bridge the gap between the lifting table and a loading dock.

#### 5 Circular turn table

Circular turntable fitted on the top surface of a scissor lift.

#### 6 Rectangular turn table

Rectangular surface bolted to the basic scissor lift platform. The unit is gapped and electro-interlocked to the lift travel to reduce the risk of trapping an operator.

#### 7 Mechanical shotbolts

For installations where the platform is flush with the floor or ground in the raised position, the table can be equipped with heavy-duty bolts capable of withstanding severe loading.

#### 8 Pallet truck frame

Allows the table to be moved easily with the aid of a forklift or hand pallet truck.

#### 9 Side barrier rails

1,100 mm. high, complete with a mid-rail and 150 mm high toe kick-plate guards for personnel protection up to a maximum lift height of 2 m.

#### 10 Goal Post barrier

Forms an upper level barrier. In fully raised position the goal post is sized to allow for a 2 m clear headroom for personnel.

### 11 Self latching Hinged Swing gate

The door has a self locking system which provides a safety zone. Maximum elevation between levels is 2 m.

#### 12 Raise and tilt platform

Hydraulic actuated hinged tilt platform. Complete with safety edge.

#### 13 Stack Height control system

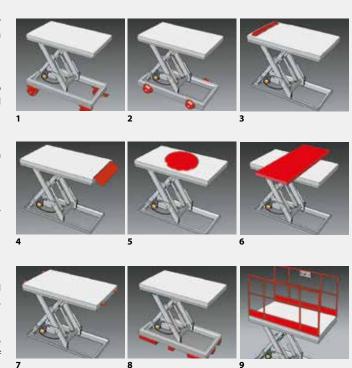
A photocell. Transmitter/reflector supplied, loose or post mounted for remote siting to suit the application.

#### 14 Roller bed

A roller bed or other conveyor top (e.g. chain or belt) is often used in multilevel conveyor systems.

#### 15/16 Bellows/chain mesh/roller Curtain

Protects the table from dust and dirt in exposed environments. Bellows can also be fitted for weather-proofing of outdoor lifting tables. Chain mesh can be fitted to the underside of lift platform which prevents access to scissor mechanism and other working parts of the machine.









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ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES

EXAMPLES OF COMPLETED PROJECTS

# **ERGOMIR** Model

The manual rotating tables Ergomir from **Angel Mir** automatically adjust to the height of pallet loads while boxes are added or removed, avoiding workers flexing, reaching and stretching. By maintaining loads at a constant height, workers can build and decompose pallet loads in a quick and easy manner, while at the same time making minimal effort and avoiding risk of injuries. A built-in rotating platform allows operators to rotate the load and to stay in the same place during the loading and unloading process.

The fastest, easiest and safest way to load and unload pallets.

#### **Features:**

- Heavy-duty springs automatically adjust themselves as boxes are added or removed and hold loads at a comfortable working height
- Low friction rotating platform.
- Extremely stable base does not require be fixed.
- Integral forking holes to make easier the relocation.
- Multiple configurations of springs for loads of 180 kg to 2040 kg.
- Spring replacement (if necessary) are quick and easy no tools required.



| Ergomir 360 comes with a full programme of accessories. Its versatility makes it the ideal solution for a wide range of advanced needs:

- 1. Portability kit / Wheelframe
- 2. Adjustable feet
- 3. Bellow
- 4. Solid circular top plate
- 5. Solid rectangular top plate
- 6. Footstep









MODELS	CAPACITIES	COMPRESSED HEIGHT	EXTENDED HEIGHT	TURNTABLE DIAMETER	BASE DIMENSION*	SHIPPING WEIGHT
Ergomir	180-2,040 kg.	241 mm.	711 mm.	1,108 mm.	915 x 915 mm.	186 kg.

<sup>\*</sup> Includes fork pockets.

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS



Hidra ramp with AB dock shelter and sectional door.



Loading bay with aluminium loading bridges.







Outside and inside view of loading dock with glazed sectional door.



**Isoperfect Plus** system in loading house.

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES



Miniramp, AC fixed dock shelter and sectional doors.



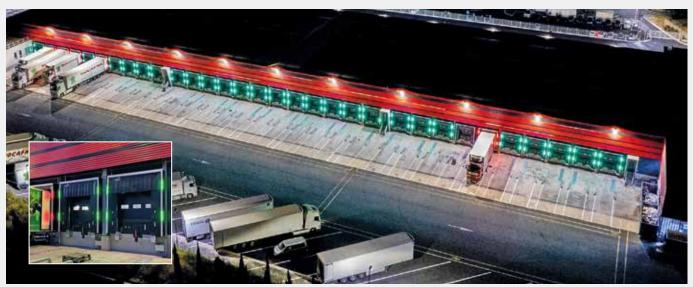
Loading bay with Isoperfect System.



Hidra leveller with hatch, sectional doors, AB dock shelters and TPE bumpers.



Hidra leveller, AB dock shelter and roller shutters in República Dominicana.



Signal shelter in refrigerated loading bay for food industry.

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES EXAMPLES OF COMPLETED PROJECTS

# **ISOPERFECT System**



**AH ISO** inflatable white shelter, **Eco dock** door and **Poly Chock Premium.** 



Outside view of **Isoperfect** loading bay.



**TELESCOPIC** leveler andretractile bumper with pedal



Loading bay with Isoperfect System.



Inside view of **Isoperfect** loading bay.



Double lifting table.



HIDRA leveller and simple lifting table.

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES





HIDRA leveller.

HIDRA leveller and sectional door. Inside view.



Security chocks and **HIDRA** levellers.



HIDRA ECO leveller, sectional door and Versalight.

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES







TELESCOPIC leveller.



HIDRA leveller with EASYRAMP pit.



 $\label{eq:hidra} \textbf{HIDRA} \ \text{leveller galvanized}.$ 

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES



**HIDRA** leveller with hatchs.



HIDRA leveller galvanized Steel.



**TELESCOPIC** leveller with opening below.



HIDRA leveller with dock shelter AB and truck guides G25.



HIDRA leveller with dock shelter AB.

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES



HIDRA leveller and roller shutter doors with peepholes.



Autodocks B2 BOX.



HIDRA leveller, sectional doors and AB dock shelters.



HIDRA leveller with hatch and PVC tail.



HIDRA galvanized with autodock B2 BOX.



Aluminium **loading bridges** in loading bay.

ISOPERFECT SYSTEM DOCK DOORS DOCK SHELTERS SAFETY SYSTEMS OTHER SOLUTIONS FOR LOADING BAY

LIFTING TABLES



Loading dock table, HIDRA dock leveller and aluminium loading bridges.



Autodock B2 BOX in loading bay for a supermarket.



**TELESCO** leveller with **AB** dock shelter.



HIDRA levellers and EasyRamp pits.



GENERAL CATALOGUE



LOADING BAY EQUIPMENT



HIGH SPEED DOORS



SECTIONAL DOORS



ROLLER SHUTTER DOORS



FIRE RESISTANT DOORS







# BARCELONA (Spain) Tel.: (+34) 972 640 620 Fax: (+34) 972 642 451

info@angelmir.com www.angelmir.com





angel mir porbisa



@angelmirporbisa



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