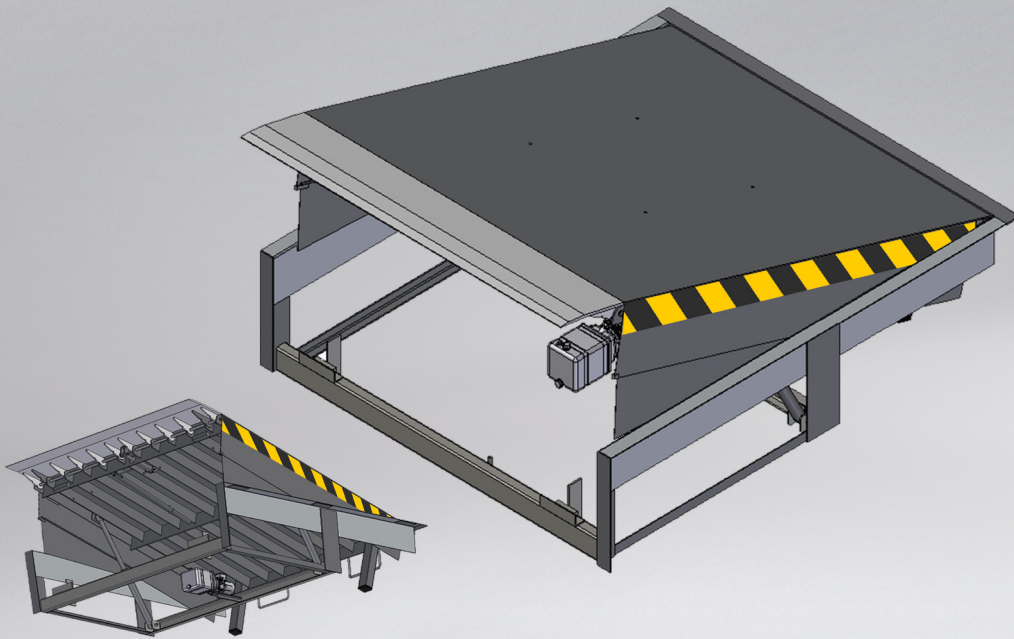


RELOADING SYSTEMS



Inkema for
WIŚNIEWSKI

RH12B DOCK LEVELLER

Intended use: A dock leveller is a device which is built-in and movable, and is used for minimizing height differences between the level of the warehouse and the vehicle cargo floor. It enables quick and efficient loading and unloading of a cargo vehicle. It adapts to the changes of cargo floor level of a docked vehicle. The frame of the dock is made of steel sections. The deck is made of diamond (chequered) steel plate. Yellow and black warning stripes are attached to the side elements of the dock leveller. The standard colour is RAL 7016. Draft blockers (side) made of PVC are a standard accessory.



ROBUST CONSTRUCTION

Compact, uniform frame joined with underside beams ensures maximum stability. Stable deck resistant to deformation is provided with 10 reinforcing ribs (St 52 steel grade) with a thickness of 8 [mm].



FLEXIBLE SOLUTION

The dock dimensions and the flexible installation method were designed so as to enable its installation in standard prefabricated dock pits with an undercut to accommodate the tail lift.



SIMPLE INSTALLATION

Installation of the suspended version requires only a couple of spot welds and connection of the control system.

CONSTRUCTION

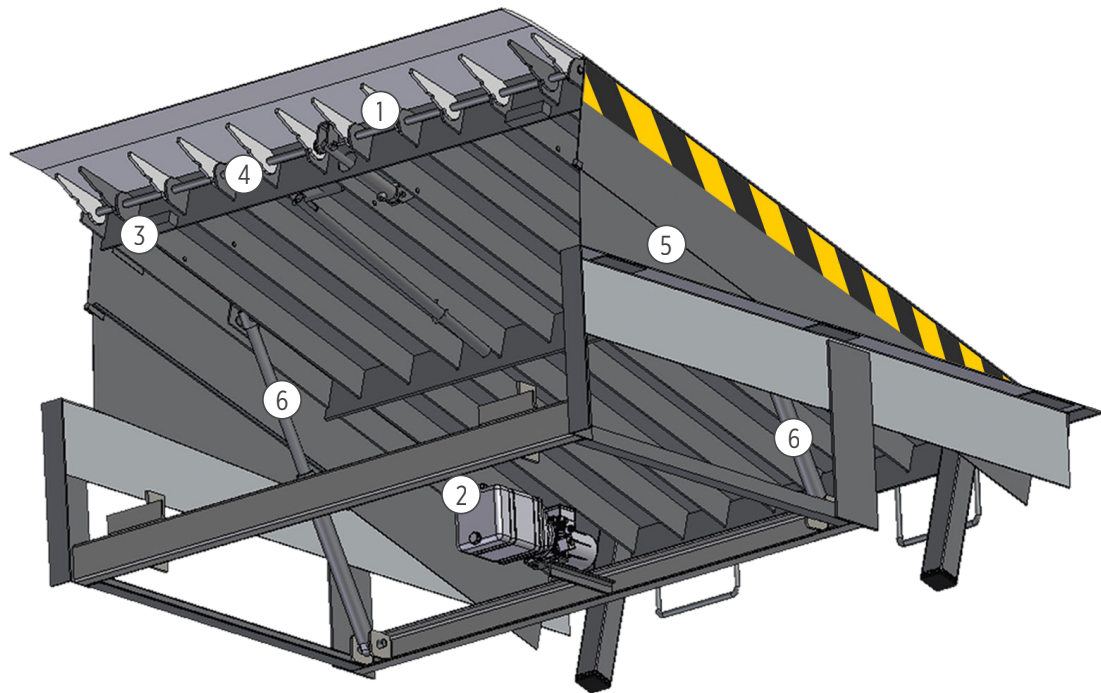
RH12B is an electrohydraulic dock leveller with a swing lip. **The dock dimensions and the installation method were designed so as to enable its installation in standard prefabricated dock pits with an undercut to accommodate the tail lift.** Both the deck and the swing lip are hydraulically driven. The deck is made of diamond (chequered) sheet 8 [mm] thick, (plate thickness 6 [mm] / thickness including pattern height 8 [mm]) grade S235JR. The lip is made of sheet 15 [mm] thick (plate thickness 13 [mm] / thickness including pattern height 15 [mm]), grade S235JR.

The dock leveller is provided with longitudinal and lateral reinforcement made of high-strength, grade S355NL steel. The rear part of the deck is attached with three hinges made of a steel rod 175 [mm] long and 19 [mm] in diameter. The swing lip is attached with self-cleaning hinges 930 [mm] long and 22 [mm] in diameter.

The robust support structure and the bottom central beam to which the deck cylinders are installed take and absorb the forces occurring above and below the dock leveller during an emergency switch-off or during

loading operations. It is prohibited to move laterally across the platform, as it can damage the device and is not covered by the warranty. The self-supporting design of the dock leveller enables its installation in the open dock pit. The main cylinders of the deck are fixed to the central support beam in such a way so as to protect the hydraulic and mechanical system in case of striking the the front beam of the dock leveller.

Our dock levellers are marked with the CE mark and meet all the safety regulations specified in the EN 1398 European standard. The standard capacity is 60 kN (as specified in the EN 1398 European standard).



- | | |
|---|---|
| 1 | Reinforced self-cleaning hinges. |
| 2 | Hydraulic kit: electric motor, hydraulic pump, oil reservoir. |
| 3 | Hinge axles protected against corrosion with electrolytic zinc coating and passivation. |
| 4 | Hinges provided with nylon spacers for swing lip positioning. |
| 5 | Toe guard marked with yellow and black stripes. |
| 6 | Two cylinders with ø35 piston rods, equipped with a safety valve. |

The suspended version can support up to 6,000 kg of load with a maximum operating incline of 12.5%

COMPONENTS

The Inkema for WIŚNIEWSKI RH12B dock leveller comprises three parts:

- Main plate with a thickness of 6/8 [mm] with a set of longitudinal reinforcements along the entire length of the deck and a lateral reinforcement in the central section.
- Lip made of diamond sheet with a thickness of 13/15 [mm]. The edge swings and is machined towards the end to match the vehicle and facilitate the rolling of forklifts and pallet trucks.
- Lower structure made of rolled steel sections onto which the deck and hydraulic unit are placed.



DIMENSIONS

The standard models are 600 [mm] in height. The swing lip has a standard length of 400 [mm] (when 100 [mm] thick bumpers are used, the lip overlaps the vehicle floor by 225 [mm]).

Standard dimensions of the RH12B dock leveller with a swing lip: length 2,560 [mm] x width 2,000 [mm] height 600 [mm]

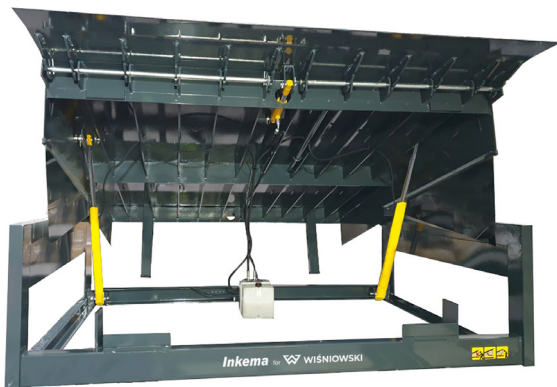
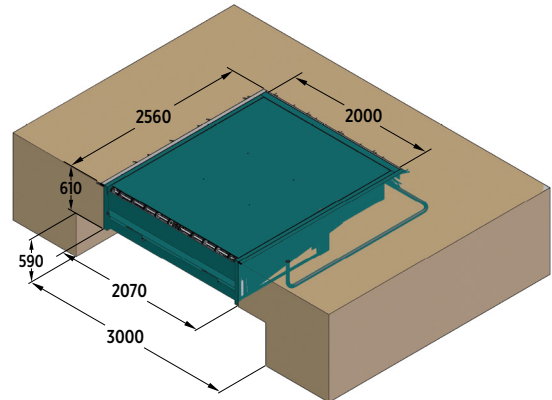
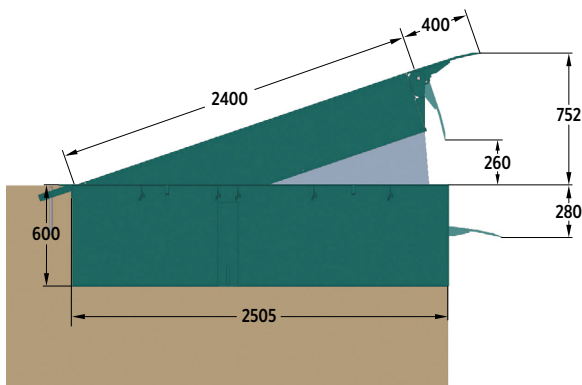


The width of the dock pit for installing the dock leveller is 2,060 - 2,085 [mm].

RH12B dock leveller operation range table

S [mm]	L [mm]	A [mm]	B [mm]	M [mm]	BH [mm]
2,000	2,560	260	280	400	600

- S - width,
- L - length,
- A - effective operation range above the deck surface,
- B - effective operation range below the deck surface,
- M - lip length,
- BH - structure height.



When choosing a dock leveller, consider the maximum inclination/slope of the dock leveller in accordance with PN EN 1398 and ZH 1/156, which is 12.5% for forklift loading and 4 - 7.5% for manual loading (depending on the means of transport).

HYDRAULIC SYSTEM

The deck is moved with 2 hydraulic cylinders (with a 35 [mm] piston diameter). A separate cylinder moves the lip (30 [mm] piston diameter). The hydraulic system is fully closed and even when operated in extreme conditions, it is contamination resistant. The main cylinders are equipped with safety valves. To prevent deck vibrations and hydraulic power pack damage by external factors, the compact hydraulic power pack is installed to the underside of the dock leveller structure and is connected to both cylinders with two hydraulic hoses.

Operation

The RH12B dock leveller is operated with a single button. When the button is pressed, the deck is lifted from the home position and after the highest position is reached, the lip is lifted and locked. When the button is released, the dock and the lip are lowered to the cargo floor level of the vehicle. When the lip rests on the vehicle cargo floor, the lock is automatically released. During the loading/unloading process, the dock leveller automatically adjusts its position as the vehicle height changes. Once the loading/unloading is complete, press and hold the button until the deck reaches its top position and the lip folds. Next, release the button and the levelling dock will automatically return to its home position. The RH12B dock leveller is also intended for loading/unloading cargo below its level.

The RH12B dock leveller central control box.



Hydraulic equipment and control panel

The hydraulic unit includes:

- an electric motor 0.75kW – 230/400V,
- a hydraulic pump with a flow rate of 5 l/m and a 5 litre tank with oil sight glass,
- a safety solenoid valve,
- two cylinders with a $\varnothing 35$ [mm] piston rod,
- a lip cylinder with a $\varnothing 30$ [mm] piston rod and hydraulic hoses.

The control panel includes:

- a transformer for a 24V AC control circuit,
- a switch,
- a connection strip,
- fuses,
- a motor protection switch,
- a contactor and starter pilot.

Standard safety devices.

- Safety valve on each actuator preventing damage in case hydraulic hoses burst.
- Emergency switch with switch-on interlock.
- Side foot guard plates.
- Lip hold on the front beam in home position.
- Yellow and black warning stripes.
- Robust service support beam.
- Thermal relay motor protection.
- Pictograms presenting the operation (control panel).

Door-dock leveller protective device.

When the door-dock leveller protective device (photocell) is installed, the dock leveller is prevented from switching on when the door is closed. When the dock leveller is installed together with the MakroPro 2.0 automatic industrial door (GfA Automatik drive unit with the TS 970, TS 971 or TS 980 control unit), the protective signal can be connected directly to the GfA control unit.

In such case, the control unit must have a free (unused) relay input.

The photocell door-dock leveller protective device is especially recommended for manually operated doors or when our dock levellers are used with third-party doors.

Door-dock leveller protective device (photocell).



Installation

The RH12B dock leveller with a self-supporting frame is intended for welding to a ready installation frame. The dock leveller has corner angle bars on the sides and in the rear section of the frame. The dock dimensions and the installation method were designed so as to enable its installation in standard prefabricated dock pits with an undercut to accommodate the tail lift.

Pit for the RH12B dock leveller installation.

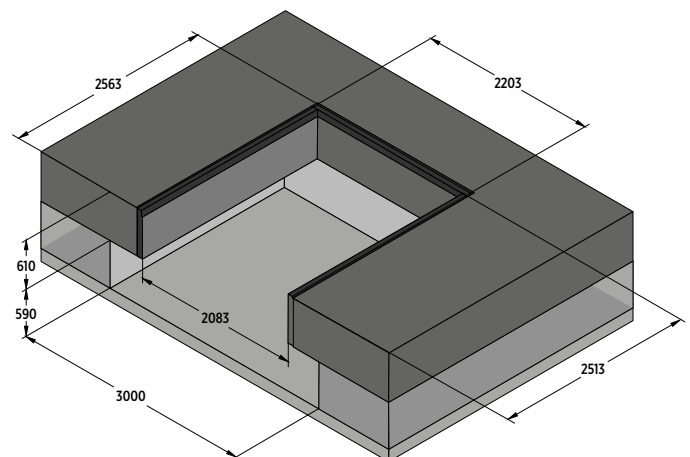


PHOTO GALLERY



RH12B dock levellers.



RH12B dock levellers.



RH12B dock levellers.



RH12B dock levellers.

TECHNICAL DATA

	RH12B DOCK LEVELLER
Design	Self-supporting
Capacity (EN 1398)	60 kN
Installation height	600 [mm]
Lip length	400 [mm]
Lip angle (from the end face)	(about 5°) 150 [mm]
Motor	0.75 kW
Power supply	400 V / 50 Hz
Control voltage	24 V AC
Ingress protection (control panel)	IP 55
Maximum hydraulic operating pressure	about 140 bar
Diameter of the main actuator piston rods	35 [mm]
Diameter of the lip actuator piston rod	30 [mm]
Ambient temperature operating range	from -30° to +40°C
Standard colour	RAL 7016 (anthracite)
Draft blockers (side)	standard



WISNIOWSKI

WISNIOWSKI Sp. z o.o. S.K.A.
 PL 33-311 Wielogłowy 153
 Tel. +48 18 44 77 111
 Fax +48 18 44 77 110

www.wisniowski.eu

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