

Walking Floor technology in South Africa.

What is a walking floor? Until now it was an extruded aluminium plank floor fitted in a tri-axle trailer +/- 12 to 15,25 metres maximum in length. The design of the aluminium planks used, depends on the product to be moved by the floor if the correct selection process was followed.



All moving floors work on the same, area vs friction principle, every 3rd plank moves together, effectively splitting the floor into 3 moving areas. When one set of planks moves +/- 200mm, a third of the floor is moving while two thirds stays stationary. In effect the larger surface/friction area that stays stationary also holds the load in place. This process repeats itself 3 times till the entire floor has moved 200mm from underneath the load. At this point all the planks move together 200mm in the opposite direction, in effect moving the entire load with it.

By repeating this process for 5 to 9 minutes depending on the length of the floor and the oil flow available from the wet kit, the entire load would then have moved horizontally of the trailer and would either be on the ground or in the load bin.

To get the best from a moving floor you need a very specific wet kit. You would require a pump able to supply 100 to 120 litres per minute at 260 bar pressure, hoses leading to the Floor drive unit of no less than one inch, hoses leading back to the 200 litre tank of no less than 1,5 inch, and no restrictions to flow allowed.

What are the positives to using a **Keith Walking Floor**, no tipping required means the vehicle cannot fall over, you can discharge the load indoors, the floor can be loaded from the rear or from the top. Using a stationary walking floor in a warehouse along with a mobile walking floor in the trailer a pre-loaded load of say stacked pallets in the warehouse can be loaded onto the trailer in 5 to 9 minutes and then unloaded at another warehouse on a roller bed in the same time.

Floors used in conjunction with wet kits without oil coolers need about an hour for the oil to cool down between loads. By fitting an oil cooler to the wet kit, this resting

between loads can be substantially reduced. Standard maintenance on Aluminium floors include, cleaning the gap regularly with a steam cleaner in between the planks to reduce friction and ensure free movement between the planks, changing the oil filter regularly and making sure the hydraulic hoses and fittings are in good condition.

Aluminium plank floors traditionally were restricted to products like grains, coal, clay, wood chips, daff, lime, palleted goods and any nonabrasive material. The maximum load an Aluminium Walking floor is designed to move is 36 Tons.



The **Keith Walking Floor** has evolved to the new **Keith V-Floor**. The **Keith V-Floor** works on exactly the same principle, but is a Domex plank floor. This floor has no gaps in between the planks, it is 100% sealed and enables the floor to now move product previously only reserved for tippers.

Keith V-Floor Construction



The **Keith Domex V-Floor** has two distinct advantages, it can now move gravel, shredded steel, rocks, rubble, concrete, chrome concentrate, sand, and any other load a conventional aluminium floor could not do. The **Keith V-Floor** with a slight modification to the Cylinders can also move loads of up to 75 Tons Maximum if required.

All the wet kit requirements stay the same for the **Keith V-Floor** as it would be for the conventional Aluminium floor.



Other than palleted goods where the aluminium plank is better suited, the **Keith V-Floor** can move any bulk load currently running on tippers and side tippers in South Africa, including hot asphalt.

Of course there is a small reduction in legal payloads due to the heavier plank design. Traditional aluminium floor depending on the weight of the trailer on a 13.5 metre trailer could expect payloads of anywhere between 29 and 31 tons. Well within the 36 Tons ability of the **Keith drive unit**. The **Keith Domex V-Floor** on a 13.5 metre tri-axle trailer could achieve a legal payload of 28 to 30 tons depending on the weight of the trailer.



Jost supplies the drive unit floor kit to the Body Builder of the client's choice, oversees fitment and gives back up and support for every floor installed in South Africa.

For more information please contact Jost on 011 395 8500

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