Mounting instructions for socket-mounted AirLoc Wedgmount® precision levelers VRKCS

Jacmount® GLRN

Please read these operating instructions carefully. The weights that are supported by these precision parts can be extremely heavy. Due to the extremely high gearing of the wedge construction, these loads are usually hidden and are often underestimated. Incorrect or poorly planned assembly of the wedge mounts can impair the performance of the machine.

The product must be in a technically flawless condition. Do not use if you notice visible damage!

Safety instructions

Avoid overloading

AirLoc Wedgmount® levelers are designed to support a specific load. Please consult the data sheet to find the permissible maximum load of the Wedgmounts and ensure that this load limit is not exceeded when using the Wedgmounts. Otherwise, this could damage the Wedgmount®

Please also note that if the machine centre of gravity is off centre, this can result in different loads on the different Wedgmount® levelers. Take the maximum load of the Wedgmount® as the reference for the maximum load.

Observe the leveling range

Every Wedgmount® has a limited leveling range. When you reach the upper or lower leveling limit, the leveling stud torque will rise significantly. Do not apply force to turn the leveling stud! Otherwise, this could damage the Wedgmount!

Use spacer disks or AirLoc spacers on the spherical seats to enlarge the leveling range, if necessary.

General notes on leveling the machine

Machine feet surfaces that have not been machined require Wedgmount® levelers with spherical seats VRKCS(V) with an additional spherical washer set (spherical seat DIN 6319) above the isolation disc on the stud assembly/anchor bolt.

The contact surfaces of both the machine and floor must be thoroughly clean.

With AirLoc Wedgmount®, the leveling stud is turned clockwise to rise the machine.

With heavy machines, it is possible under certain circumstances to adjust the Wedgmount® to the highest position before applying the load. The machine is then leveled downwards which requires considerably less force. Make sure that there is no threat play after leveling by ensuring that the last leveling adjustment is clockwise.

Position the Wedgmount® so that the leveling stud can be easily reached. If the Wedgmount® is in the centre position under the machine, use the AirLoc leveling stud extensions.

On machines where the centre of gravity is not eccentric, all the anchor points must be equally loaded and the torques on all Wedgmount® levelers must be within the same tolerance range.

With a four-point support, always work in pairs with the support points, i.e. two right, two front, two back etc. with the same number of turns.

An equal, balanced load must be ensured on the Wedgmount® levelers to prevent the machine from “walking”. If this is not the case, level two diagonal Wedgmount® levelers until the torques are approximately equal.

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1. Assembly

Screw the M24 threaded sleeve completely into the machine base until only the collar, without any thread, is protruding below the machine flange (the M24 thread on the threaded sleeve has not cut through).

Insert the AirLoc Wedgmount® with socket pins into the threaded sleeve until the circlip correctly engages over the collar of the M24 threaded sleeve. Align the Wedgmount® to the machine flange.

2. Preparations and mounting the machine

The contact surfaces of both machine and floor must be thoroughly clean. It is important that all contact surfaces have equal loading and that full area coverage is ensured. A realignment in the X- and Y-direction can only be achieved on MSC-type AirLoc Wedgmount® levelers or other mounting aids, prior to transferring the load onto the Wedgmount® (with a high coefficient of friction).

Machines that are lowered by crane must be placed onto MSC-type AirLoc mounting Wedgmount® levelers, or onto suitable wooden blocks in order to avoid damaging the Wedgmounts®. The machine is lowered onto mounting Wedgmount® levelers and can then be carefully placed onto the inserted Wedgmount®. Fine adjustment can then be carried out (please refer to the information in point 3 on the settling time).

3. Setting time of the isolation material

All vibration isolation pads fixed under the Wedgmount® will be compressed under load. The compression process requires a certain amount of time. The machine alignment should be checked approximately 3 weeks after installation and, if necessary, the machine must be re-levelled. We recommend regular checks of the machine alignment (min. once per year).

4. Disassembly

- 515.6-VRKCS: Level the Wedgmount® in its lowest position. Insert Ø 5 mm steel mandrel into the M24 threaded sleeve drilled hole. 202.6/202.7-VRKCS: Insert Ø 5 mm steel mandrel through the slotted upper part of the spherical washer set into the M24 threaded sleeve drilled hole. If necessary, turn the Wedgmount® until the slot and bore hole are flush.
- Unscrew the M24 threaded sleeve with the Wedgmount®.
- Unscrew the M16 stud from the spherical washer set, remove the M24 threaded sleeve.
- Re-mount the M16 stud or screw it into the Wedgmount® to re-assemble.

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