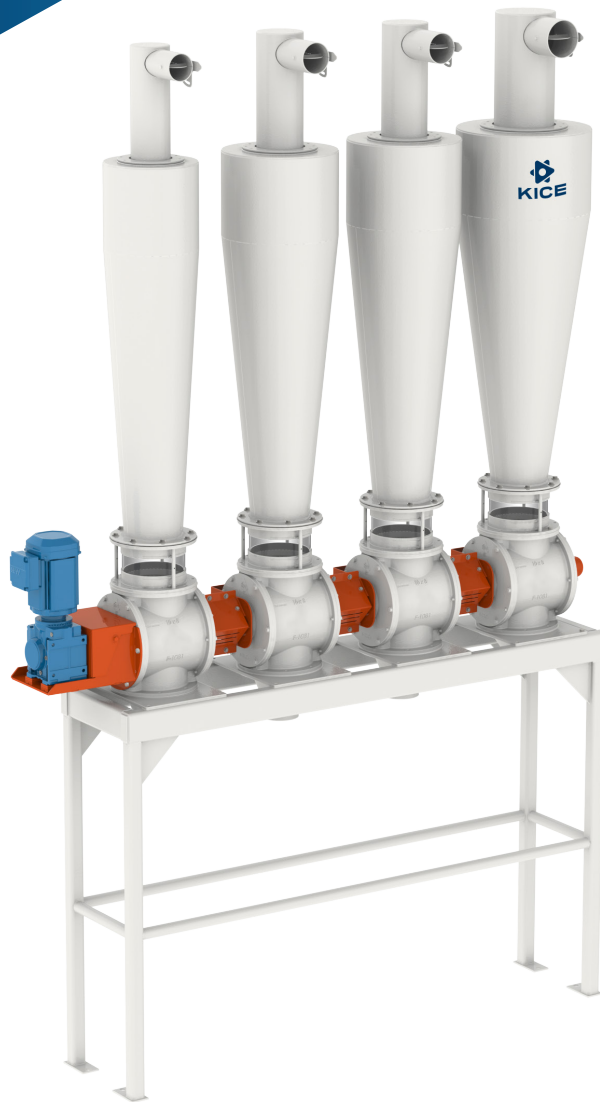


Airlock Bench Installation Guide

Operators Manual



Special execution, intended for use in potentially explosive atmosphere (zone 22) in conformity with category 3 of group II, according to the European ATEX Directive 94/9/EC. The equipment has the following marking:



II 3 D c

AIRLOCK BENCH INSTALLATION GUIDE

The following information is intended to provide general guidelines for installing a Kice Airlock Bench and should not be considered step-by-step instructions due to variations in the supplied product and site location. Any questions arising before or during installation should be directed to a Kice representative for clarification or recommendations.

FOLLOW ALL SAFETY GUIDELINES WHEN WORKING ON OR OPERATING EQUIPMENT

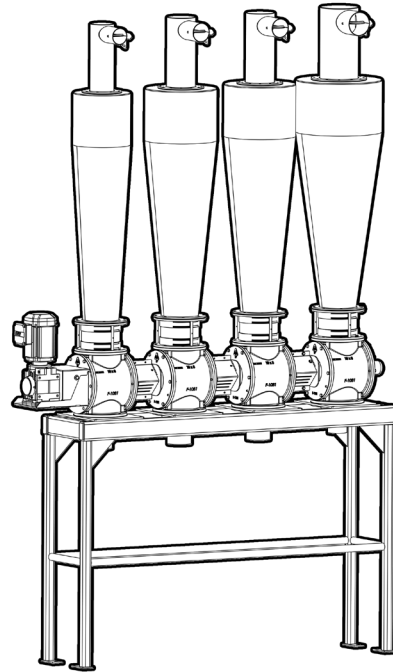
Refer to the appropriate Kice Airlock manual for operation, maintenance, and safety information prior to operating equipment.

The Airlock Bench has been inspected at Kice and should be in excellent condition upon delivery. A thorough customer inspection of the Airlock Bench should be completed upon receipt to verify its condition. When a carrier signs the Kice Industries, Inc. bill of lading, the carrier accepts responsibility for any subsequent shortages or damage, evident or concealed. Therefore, any resulting claim must be made against the carrier by the purchaser. Delivery inspection should be completed before signing the carrier's release and any shortage or damage should be noted on the carrier's delivery document before accepting the shipment.



WARNING: Use appropriate equipment when lifting or moving the airlock bench. Make sure all persons and obstructions are clear from the path and installation area. When installing the equipment make sure the moving parts inside the equipment are not accessible.

NOTICE: Kice Airlock Benches are built and shipped in many different configurations, including floor mount and hanging mount options. The bench must be uniformly supported when moved or handled, being careful to avoid concentrated stresses that may distort or twist the bench.



Example Airlock Bench – Floor Mount Configuration

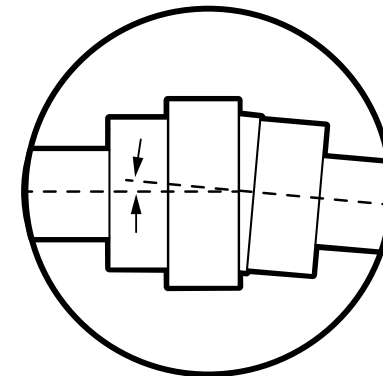
Installation

The installation location should be properly designed to support the airlock bench. It is important that the mounting location be flat and level across the span of the bench. For hanging benches the structural steel support beams must be of sufficient size or have the necessary bracing to support the unit load.

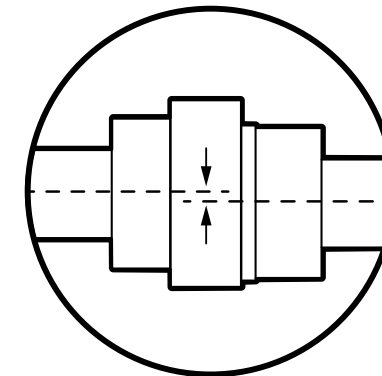
NOTICE: Whether mounting on the floor or hanging from a structural beam, check each foot of the bench for gaps between the foot and the mounting location and shim as necessary before tightening anchor bolts. A slight distortion of the bench when tightening anchor bolts can affect the alignment between airlock valves. This can cause premature failure of the couplings between airlock valves or the airlock valves to squeal or lock up during operation.

Remove guards between airlocks and check coupling set screws to make sure they are tight.

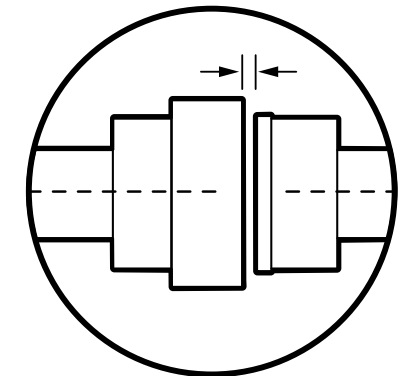
Refer to coupling specific installation and maintenance instructions. Note specific torque requirements for installation and allowable gap and misalignment tolerances based on type and size of coupling.



Angular Misalignment



Radial Misalignment



Axial Misalignment

Re-install guards.

NOTICE: When connecting duct work to cyclones check to ensure each connection is properly aligned before tightening. If the connection is distorted it can pull on the mating airlock and cause misalignment of the bench.

Troubleshooting

Issue	Possible Cause	Solution
Airlocks squeal or vibrate during operation	Bench deflected or twisted during installation	Loosen bench foot anchor bolts and see if noise or vibration improves. Shim bench feet as necessary before tightening anchor bolts.
Coupling fails prematurely	Airlock shafts misaligned Bench deflected or twisted during installation	Check shaft alignment between airlocks. Refer to installation and alignment requirements in the coupling instruction manual. Shim airlocks as necessary to correct shaft alignment. Loosen bench foot anchor bolts and shim feet as necessary before re-tightening.
Airlock not turning	Check coupling installation	Ensure coupling is installed properly. Refer to the coupling torque tightening requirements in the coupling instruction manual.

If condition continues, contact a Kice representative for further evaluation.

For questions or additional assistance, please contact the Customer Service Department or Quick Ship Department.

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