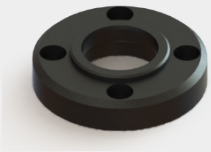
MODULAR AIR BEARINGS

The OAV Modular Air Bearing design subdivides motion systems into smaller installable parts. They can be independently installed and then used in different systems and shapes. OAV Modular Air Bearings make use of industry standards for interfaces. OAV Modular Air Bearings offer many benefits such as reduction in cost, shorter installation time, flexibility in design, augmentation, and exclusion. It is a complete offering of air bearings produced with the design for easy retrofitting into existing applications or designing into new applications for ultimate accuracy positioning.

OAV Air Bearings generate evenly distributed gas films between the surface and the substrate. Because of low gas viscosity and friction losses by viscous shearing, mechanical contact is avoided. Our modular air bearings are manufactured with aerospace quality material. They are ultra-precise with exceptional linear straightness and flatness. Vibration and maintenance-free, ready to install.

Part Number	Size	Input Pressure	Ideal Load X	Flow	Fly Height	Bearing Height	Bearing Weight	Flatness
OAV90DG50	38 mm x 50 mm	0.27 to 0.68 MPa (40 to 100 PSI)	X, 160 N (35 lbs) Y, 160 N (35 lbs)	1.6 NLPM (3.4 SCFH)	4 µ	38 mm	91 g	0.0005 mm (0.00002 in)
OAVMOD40L80V	40 mm x 80 mm	0.27 to 0.68 MPa (40 to 100 PSI)	530 N (119 lbs)	1.5 NLPM (3.16 SCFH)	5 µ	15 mm	259 g	0.0005 mm (0.00002 in)

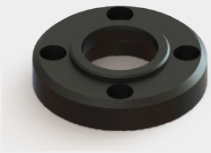
COMPETIBLE WITH



Mounting Screws

part# OAV13MSCREW

This high carbon stainless steel is aerospace quality. With a ball end configuration tolerance of .0006mm, it is always parallel and easy to install.



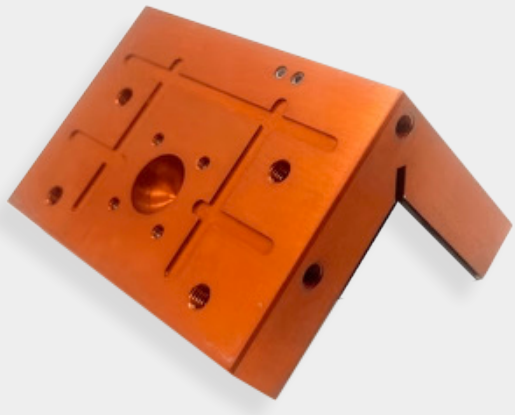
Retaining Plate

part# OAV13MSCREW

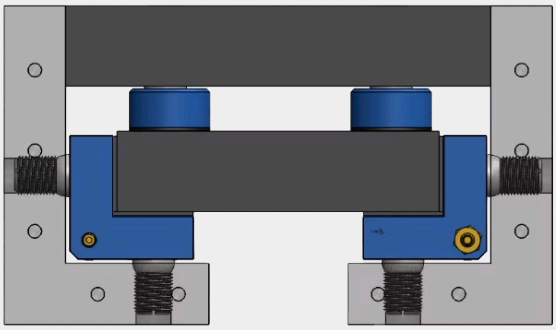
This high quality anodized aluminum meets aerospace quality. With a tolerance of .0006mm, it is always parallel and easy to install.

Custom Design

We provide designs that are integrated into your product and we can quickly develop a design based on the application or specific requirements. We provide detailed drawings and 3-D CAD models and can analyze complex issues associated with applications from nanometer accuracy positioning to standard calculations.

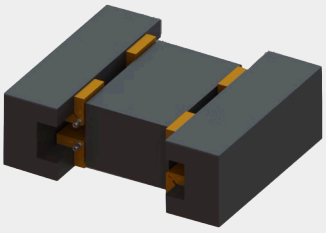


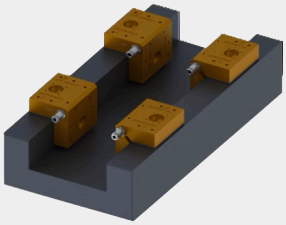
MODULAR CORNER AIR BEARING

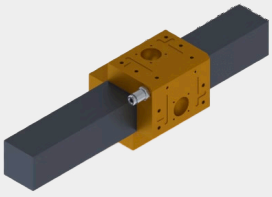


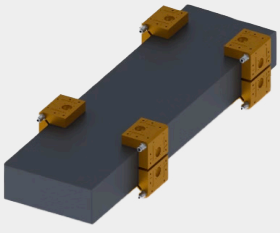
Preload: Modular air bearings can be preloaded in many different ways.

1) Opposite bearing: The most common way is to preload with a bearing on the opposite end. This requires more space and adds more weight, but it provides for more stiffness and load capacity. To achieve the highest stiffness and balance, it is recommended to make sure the two bearings are placed opposite of one another, and that both surfaces are parallel to each other.









CONTACT US
www.oavco.com - Princeton, USA
Email: support@oavco.com
Phone: +1 609 454 5340